

## TECHNICAL MEMORANDUM

TO: Michael Kuntz, Washington State Department of Ecology

FROM: Piper Roelen, P.E. *DRML*

DATE: April 15, 2013

**RE: MARCH 2013**

**MONTHLY REMEDIATION PROGRESS REPORT  
FORMER HEAVENS SUPPLY COMPANY SITE (VCP #NW1698)  
7009 GREENWOOD AVENUE NORTH  
SEATTLE, WASHINGTON**

Per the reporting and data submission requirements outlined in the Final Cleanup Action Plan (Landau Associates 2012) as approved by the Washington State Department of Ecology (Ecology; 2012a), this technical memorandum summarizes the status and progress of the electrical resistance heating (ERH) and soil vapor extraction (SVE) remedial action at the Former Heavens Supply Company site (Site) located at 7009 Greenwood Avenue North in Seattle, Washington (Figure 1). A Site map is provided as Figure 2. This progress report covers the March 2013 reporting period. This is the first progress report submitted since system startup and, therefore, also includes a summary of remediation system construction activities that occurred prior to March 2013 and leading up to system startup.

**SUMMARY OF CLEANUP ACTION WORK COMPLETED PRIOR TO ELECTRICAL RESISTANCE HEATING/ SOIL VAPOR EXTRACTION SYSTEM STARTUP (NOVEMBER 2012 – FEBRUARY 2013)**

- TRS Group, Inc. (TRS) and its drilling subcontractor (Cascade Drilling) commenced construction of the ERH system in November 2012 and continued through February 2013. ERH construction activities are described in TRS's *ERH Construction/Start-Up Report* (Attachment 1). Construction activities consisted of:
  - Drilling and installation of 73 combination electrodes/vapor recovery (VR) wells
  - Drilling and installation of 12 temperature monitoring points (TMPs)
  - Assembly and hookup of electrical cables, VR piping, and feed water piping
  - Delivery and hookup of Power Control Unit (PCU), condenser/cooling tower, blower, vapor-phase granular-activated carbon (VGAC) and liquid-phase granular-activated carbon (LGAC) vessels
  - Installation of power poles and transformer for electrical service (by Seattle City Light)
  - Transport and disposal of construction-derived waste soil to Waste Management (non-hazardous soil) and ChemWaste Management (designated hazardous waste soil) disposal facilities in Arlington, Oregon.

- Landau Associates and its construction subcontractor (Glacier Environmental) commenced construction of the SVE system in November 2012 and continued through December 2012. SVE construction activities consisted of:
  - Excavation and installation of horizontal SVE trench wells along the northern property line
  - Excavation and installation of horizontal SVE trench wells adjacent to six right-of-way (ROW) trees along Greenwood Avenue North ROW and North 70<sup>th</sup> Street ROW
  - Delivery and hookup of SVE blower
  - Hookup of vapor extraction piping from SVE wells to the blower and from the blower to the ERH vapor treatment system consisting of vapor phase granular activated carbon (VGAC)
  - Transport and disposal of construction-derived soil at Waste Management (non-hazardous soil) and ChemWaste Management (designated hazardous waste soil) disposal facilities in Arlington, Oregon.
- Landau Associates and its construction subcontractor (Glacier Environmental) conducted a focused remedial excavation on the Smith Property in February 2013. Remedial excavation activities included the following:
  - Removed ailanthus tree adjacent to driveway and the section of concrete driveway pavement within excavation limits
  - Removed bamboo within the excavation limits, staged it on plastic adjacent to excavation (covered the roots in mulch and periodically watered the roots/mulch to keep moist during excavation activities) per certified arborist's (Urban Forestry Services, Inc.) recommendations
  - Excavated the soil within excavation limits to a depth of approximately 2 to 3 feet
  - Collected excavation bottom and sidewall soil samples for laboratory analysis to document the condition of remaining soils, and soil samples from the root zone of the bamboo to confirm that the soil around the roots could be returned to the planting area
  - Backfilled the excavation with structural fill and compacted
  - Placed gravel sub-grade, compacted, and graded along the length of removed section of driveway
  - Formed, poured, and finished driveway to match existing
  - Backfilled planting strip along driveway with organically amended topsoil and replanted, mulched, and staked/roped bamboo per certified arborist's recommendations.

## **SUMMARY OF WORK COMPLETED DURING REPORTING PERIOD (MARCH 2013)**

ERH and SVE system initial startup and testing began in late February 2013, and continuous operation was initiated on March 13, 2013. ERH startup activities are described in TRS's *ERH Construction/Start-Up Report* (Attachment 1). In conjunction with or addition to the startup activities described in Attachment 1, the following monitoring, testing, and sampling activities were performed:

- TRS energized system components, tested equipment and interlocks, evaluated subsurface energy application, verified proper operational parameters (flow, differential pressures, and applied field vacuum), and had a third-party electrical inspection and certification.

- During the initial energy application, TRS monitored cable/electrode amperages, applied voltages to the subsurface, and the overall application of ERH to the treatment volume; concurrently TRS conducted voltage safety tests to evaluate surface conditions for the presence of accessible voltage.
- Landau Associates collected “baseline” (pre-remediation system startup), as follows:
  - Indoor air samples from the neighboring residences and church and ambient outdoor air (March 5-6)
  - Soil vapor samples from perimeter soil vapor monitoring wells (February 28: wells VMW-1, VMW-3, and VMW-4, and SMW-2 through SMW-4; and March 6: VP-1). No baseline sample was collected from soil vapor monitoring well VMW-2 because a car blocked access to the well on multiple occasions
  - Groundwater samples from shallow (perched groundwater) monitoring wells (March 6; wells SMW-2 through SMW-4)
  - Groundwater samples from deep monitoring wells (diffusion bags placed March 6 and collected March 21; wells MW-2 through MW-5).

After startup of the system (or various components thereof as applicable), the following monitoring, testing, and sampling activities were conducted:

- TRS collected daily system operation data (e.g., energy application, subsurface temperatures, and vapor system flow rates), optimized system performance, and completed additional voltage surveys to confirm all exposed voltage potentials are below TRS administrative levels.
- Landau Associates collected vapor samples and monitored vapor concentrations with a photoionization detector (PID) from various sampling points in the ERH/SVE system VR lines and from the influent, mid-point, and effluent of the VGAC system in conformance with the requirements of the Puget Sound Clean Air Agency (PSCAA) air permit.
- Landau Associates performed weekly performance monitoring of indoor air and soil vapor, with samples collected as follows:
  - Indoor air samples from the neighboring residences (weeks of March 18 and March 25)
  - Soil vapor samples from perimeter soil vapor monitoring wells (week of March 11: wells VMW-1, VMW-3, VMW-4, and SMW-2 through SMW-4)
  - Soil vapor samples from perimeter soil vapor monitoring wells (weeks of March 18 and March 25; wells VMW-1 through VMW-4, SMW-2 through SMW-4, and VP-1).

## **SUMMARY OF REMEDIATION PROGRESS AND BASELINE AND PERFORMANCE MONITORING DATA**

- As of April 1, 2013, 387,178 kilowatt-hours (kWh) of energy (approximately 13 percent of the design total energy delivery) has been applied to the subsurface by the ERH system resulting in an average 33.1 degree Celsius (°C) rise in subsurface temperature. Temperature increased from an average of 16.4°C prior to system startup to an average of 49.5°C (an average temperature rise of approximately 2°C per day since startup). Greater detail on energy delivery, subsurface temperature profiles, and vapor system flow rate data for the reporting period are included in TRS’s *ERH Construction/Start-Up Report* (Attachment 1) and TRS’s *Electrical Resistance Heating Weekly Status Report* for March 25 to April 1, 2013 (Attachment 2).

- Baseline indoor air sampling data indicate that concentrations of the Site contaminants of concern [specifically tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride (VC)] in the indoor air spaces of neighboring residences (as well as the church) were well below the Site-specific cleanup levels (CULs) during this reporting period. Performance monitoring results during this monitoring period were similar to baseline results. Table 1 summarizes cumulative laboratory analytical results for indoor air. Laboratory analytical reports for indoor air sampling are provided in Attachment 3.
- Baseline soil vapor sampling data indicate that concentrations of PCE and TCE in soil vapor collected from vapor monitoring wells around the perimeter of the Site started above the Site-specific soil vapor screening levels prior to system startup. Performance monitoring data indicate that after system startup, soil vapor volatile organic compound (VOC) concentrations have either remained relatively consistent in most wells or have shown a significant decline (i.e., in vapor monitoring wells VP-1 and VMW-1). An exception is SMW-2, where increasing PCE and TCE concentrations are observed following system startup. Table 2 summarizes cumulative laboratory analytical results for soil vapor. Figure 3 presents soil vapor VOC concentrations with time at each monitoring location. Laboratory analytical reports for soil vapor sampling are provided in Attachment 4.
- Baseline groundwater sampling was performed at deep and perched groundwater monitoring wells. PCE, TCE, VC, and cis-1,2-dichloroethene (cis-1,2-DCE) were not detected in groundwater samples collected from deep aquifer monitoring wells (MW-2 through MW-5). Shallow monitoring wells SMW-2 through SMW-4 were the only shallow wells containing water during the sampling event. Groundwater samples were collected from these shallow wells; however, they were purged dry during the sampling event indicating that water in these wells was perched in the well casing and sand pack and is not representative of a continuous shallow groundwater table at the Site. Data from the shallow wells indicated the presence of PCE in the perched water at concentrations below the Site-specific CUL in SMW-2 and SMW-4, and slightly above the CUL in SMW-3. TCE, VC, and cis-1,2-DCE were not detected in any of the shallow groundwater samples. Table 3 summarizes cumulative laboratory analytical results for groundwater. Laboratory analytical reports for groundwater sampling are provided in Attachment 5.
- Monitoring of vapors from various sampling points in the ERH/SVE system VR lines and from the influent, mid-point, and effluent of the VGAC system through PID measurements and laboratory analysis indicate that VOC concentrations at SVE and VR extraction points have been steadily rising since the beginning of continuous operation. Tables 4 through 7 summarize cumulative laboratory analytical results for vapor samples from the northern SVE trench, and the VGAC influent, mid-point, and effluent, respectively. Laboratory analytical reports for system vapor sampling are provided in Attachment 4. Figure 4 presents PID measurements with time at various points in the ERH/SVE system VR system.
- Approximately 100 gallons of condensate was generated and treated through the VGAC system during the reporting period. Of this quantity of treated condensate, approximately 62 gallons were discharged to the sanitary sewer, with the balance (approximately 38 gallons) evaporated from the cooling tower. Sewer discharge samples were collected on April 1 when sufficient flow to the sewer was observed, but results were not available for this status report.
- Approximately 1,706 gallons of potable water (from the municipal water supply) was used for drip feed into the electrode borings to maintain adequate soil moisture for electrode conductance.

## **PROBLEMS ENCOUNTERED, RESOLUTION, DEVIATIONS FROM WORK PLAN, AND EXPLANATION FOR DEVIATIONS DURING REPORTING PERIOD (MARCH 2013)**

The following summarizes deviations during the reporting period from the performance monitoring schedule outlined in the Cleanup Action Plan (Landau Associates 2012):

- Landau Associates attempted to collect soil vapor samples from vapor monitoring well VMW-2 during the first two soil vapor sampling events (February 28 and March 14); however, a car was parked over the well during both events. No samples were collected from this well during those events. Samples were collected during the first normally scheduled sampling event when the well was accessible (March 19).
- Landau Associates attempted to collect an indoor air sample from the church the week of March 18, but the flow controller on the Summa canister malfunctioned and a sample was not collected. A replacement sample was collected the week of April 1 (results will be included in the next report).
- Indoor air sampling was scheduled for the Smith property “Tower” location the week of March 18, but Landau Associates was denied entry into the tower by Mr. Smith. A replacement sample was collected the week of April 1 (results will be included in the next report).
- Soil vapor sampling was scheduled for all perimeter soil vapor monitoring wells on March 14, but a sample was not collected from vapor monitoring well VP-1 in the Smith property basement because indoor air sampling, which is typically done simultaneously with sampling VP-1, was not scheduled for this date. A sample was collected during the normally scheduled sampling event the following week (March 20).

These deviations from the planned sampling schedule did not result in any significant impact to the results of the overall performance monitoring program for the Site.

## SUMMARY OF CLEANUP PROGRESS

The following summarizes progress of the overall Site cleanup through the end of this reporting period:

- The focused remedial excavation on the Smith property was successfully completed in February 2013. A total of approximately 42 tons of PCE-contaminated soil was removed from beneath the driveway on the south end of the Smith property and disposed of as non-hazardous waste [as allowable per the Ecology contained-in determination (Ecology 2012b) for the Site] at the Waste Management Columbia Ridge Landfill in Arlington, Oregon. A summary of soil sampling results from the remedial excavation for the Smith property is provided in Table 8, and associated laboratory analytical reports are provided as Attachment 6.
- The ERH and SVE system was successfully constructed/installed from November 2012 through February 2013. The system was tested and started operation in March 2013.
- Energy delivered to the subsurface by the ERH system is causing a steady rise of approximately 2°C per day in subsurface soil temperature, which reached an average temperature of nearly 50°C at the end of the reporting period.
- Vapor samples and PID measurements taken from various points in the ERH/SVE system VR piping indicates a steady rise in extracted vapor VOC concentrations/PID readings since active heating began. This results from the applied vacuum and increased volatilization rates of sorbed and liquid-phase VOC mass as the subsurface soil temperature increases. Based on

VR flow rates and laboratory data through March 27, an estimated 87 pounds of total VOCs (primarily PCE) were removed from the subsurface through the ERH and SVE system.

- Soil vapor sampling data from perimeter vapor monitoring points have not shown any significant rise in VOC concentrations, and in some locations have decreased significantly. This indicates that the SVE and ERH VR system is adequately capturing and containing soil vapors within the treatment area (i.e., no uncontrolled vapor migration away from the treatment area is occurring). An exception is SMW-2, where slight increasing PCE and TCE concentrations are observed following system startup. If this increasing trend continues to be observed after the next set of data is received, appropriate adjustments to the VR and/or SVE extraction system will be made (e.g., increased vacuum will be applied).
- Indoor air sampling data from neighboring residences are well below the Site-specific CULs and have not shown any significant rise in VOC concentrations indicating that indoor air quality is not being impacted by operation of the ERH system.
- Baseline groundwater sampling results are consistent with previous remedial investigation results (i.e., deep groundwater is not impacted by Site contaminants, and shallow groundwater, which is perched and limited in quantity, is impacted from contact with surrounding contaminated soil and/or soil vapor).

## REFERENCES

Ecology. 2012a. Letter: *Voluntary Cleanup Site No. NW1698 – 7009 Greenwood Avenue/ Approval of Cleanup Action Plan (CAP of November 7, 2012)*. From Michael Kuntz, Site Manager, Washington State Department of Ecology, to Sue Wollenberg, Former Heavens Supply Company Property Owner. November 16.

Ecology. 2012b. Letter: *Contained-in Determination for Soils Contaminated with Listed Dangerous Waste Constituents at the Former Heavens Supply Site in Seattle, Washington*. From Byung Maeng, Hazardous Waste and Toxics Reduction Program, Washington State Department of Ecology, to Sue Wollenberg, Former Heavens Supply Company Property Owner. November 14.

Landau Associates. 2012. *Final Cleanup Action Plan (Revision 1), Former Heavens Supply Company Property, 7009 Greenwood Avenue North, Seattle, Washington*. November 7.

## ATTACHMENTS

Figure 1: Vicinity Map

Figure 2: Site Map

Figure 3: Soil Vapor VOC Concentrations

Figure 4: PID Measurements in ERH/SVE System

Table 1: Indoor Air Analytical Results

Table 2: Soil Vapor Analytical Results

Table 3: Groundwater Analytical Results

Table 4: SVE Vapor Analytical Results

Table 5: VGAC Influent Vapor Analytical Results

Table 6: VGAC Mid-Point Influent Vapor Analytical Results

Table 7: VGAC Effluent Vapor Analytical Results

Table 8: Smith Property Soil Analytical Results

Attachment 1: TRS ERH Construction/Start-Up Report

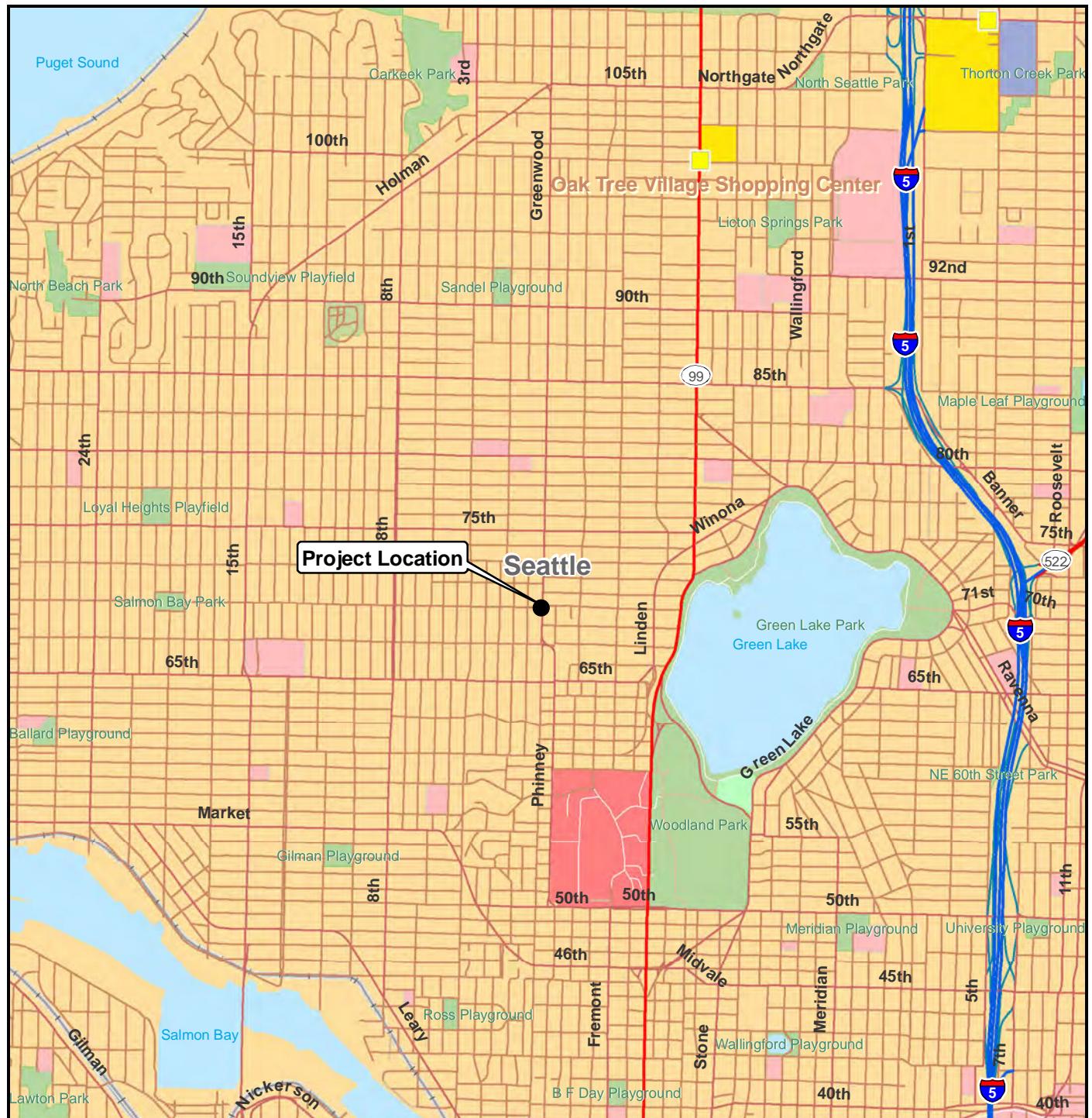
Attachment 2: TRS Electrical Resistance Heating Weekly Status Report for March 25 to April 1, 2013

Attachment 3: Laboratory Analytical Reports – Indoor Air

Attachment 4: Laboratory Analytical Reports – Vapor (Soil and ERH/SVE System)

Attachment 5: Laboratory Analytical Reports – Groundwater

Attachment 6: Laboratory Analytical Reports – Smith Property Soil



0      0.5      1  
Miles

Data Source: ESRI 2008

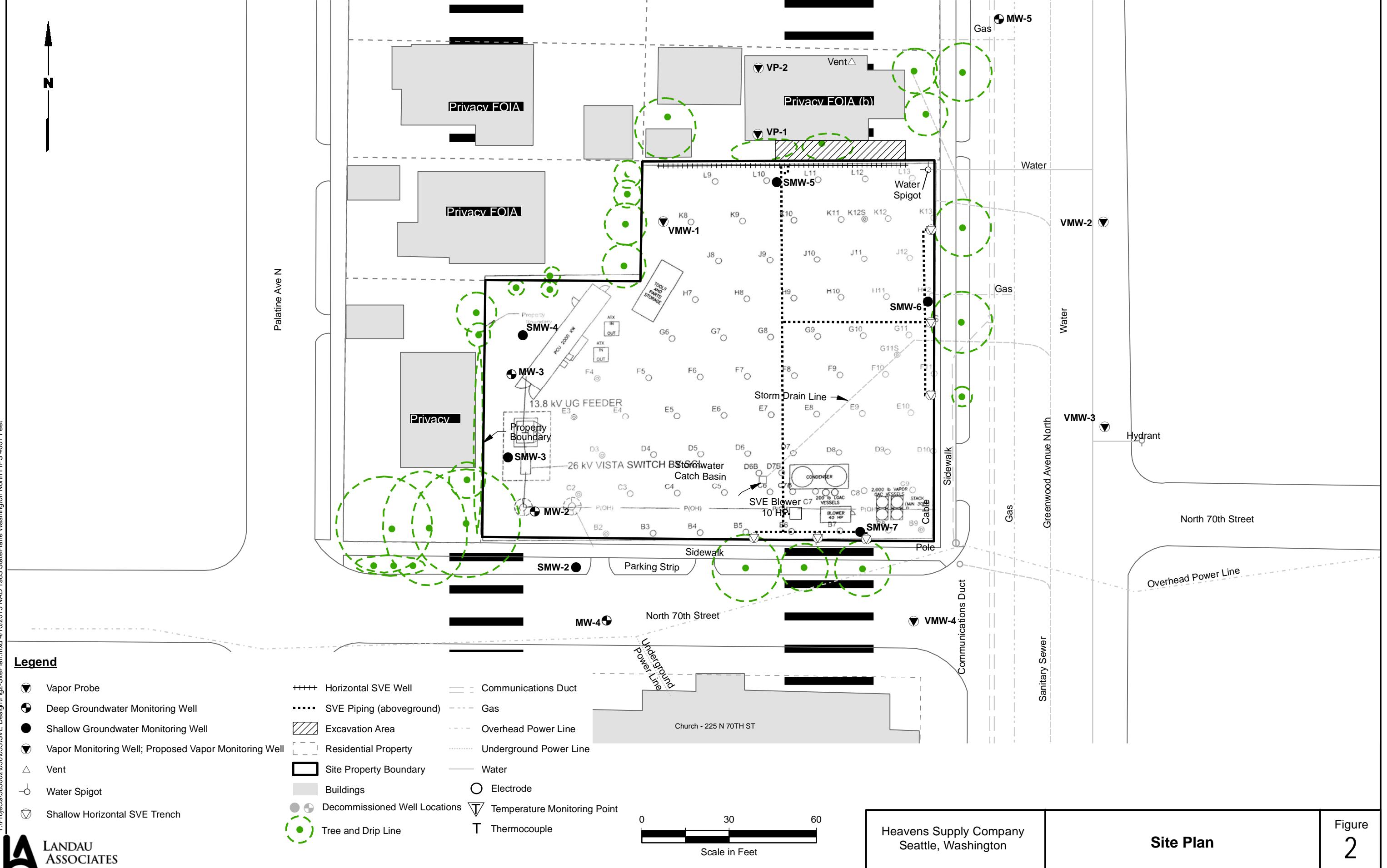


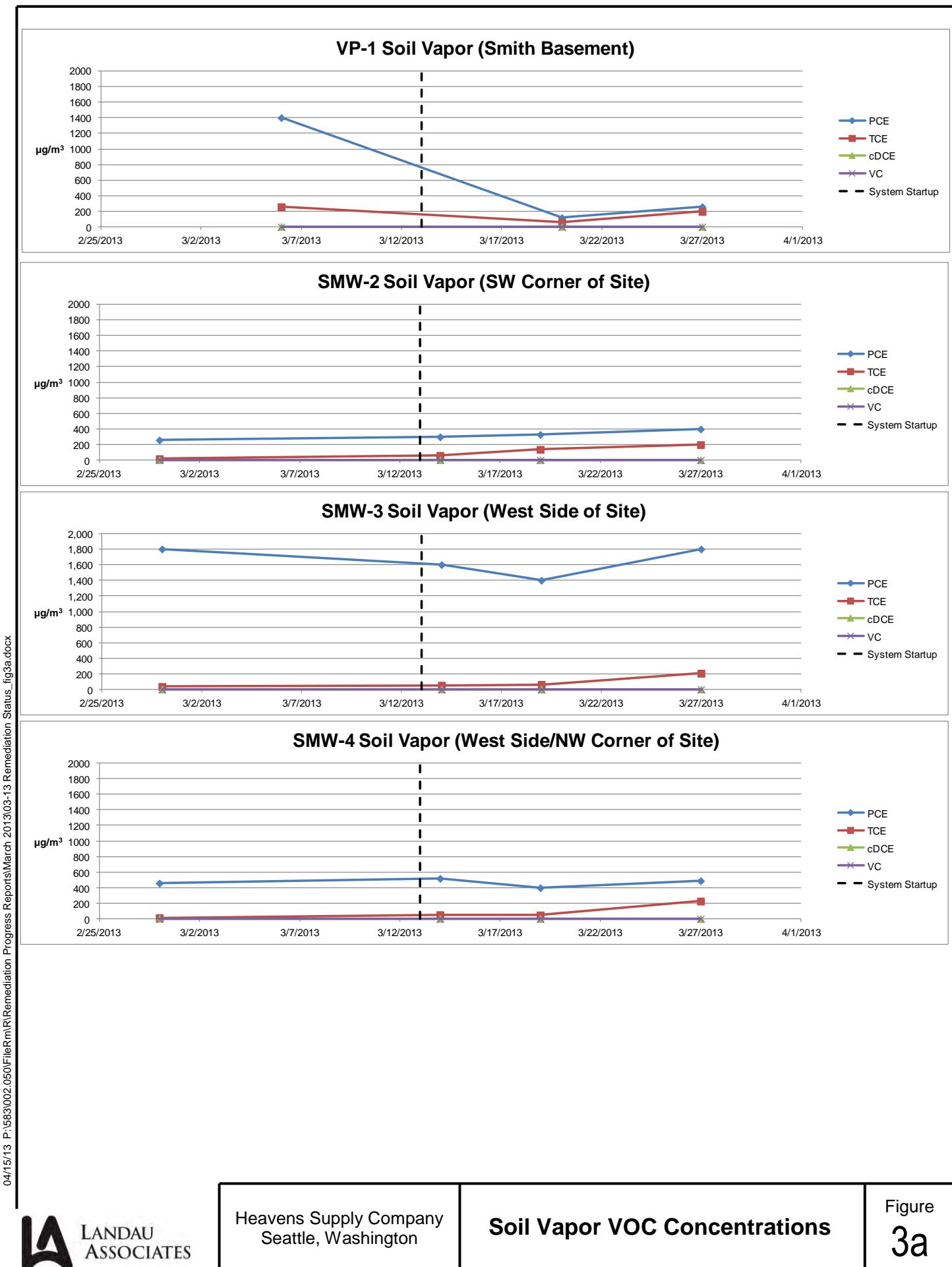
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Vicinity Map

Figure  
1





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**Soil Vapor VOC Concentrations**

Figure  
**3a**

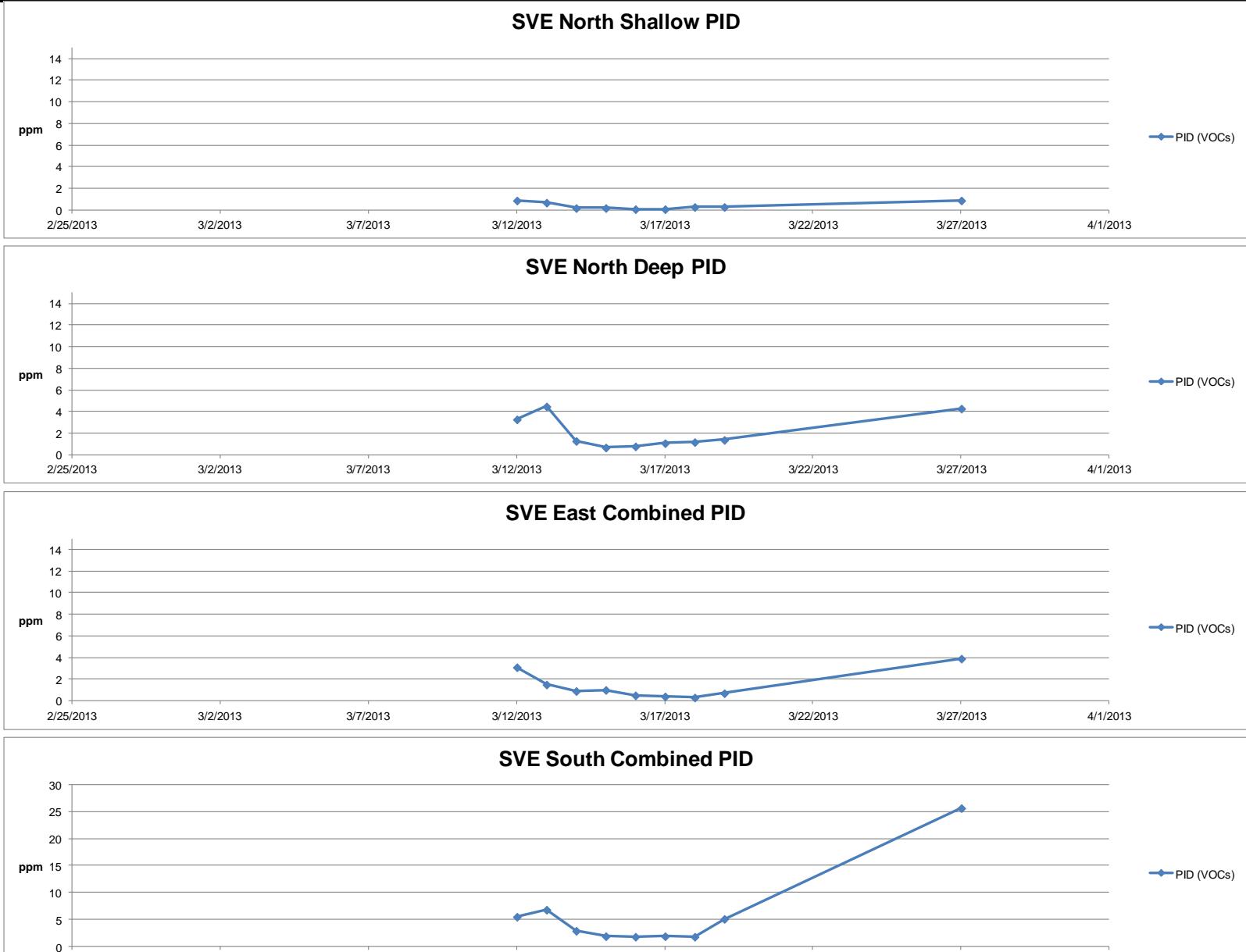


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Seattle, Washington

**Soil Vapor VOC Concentrations**

Figure  
**3b**



Heavens Supply Company  
Seattle, Washington

**PID Measurements  
in ERH/SVE System**

Figure  
**4**

**TABLE 1**  
**INDOOR AIR ANALYTICAL RESULTS**  
**FORMER HEAVENS SUPPLY COMPANY**  
**SEATTLE, WASHINGTON**

Sample Date	7014 Palatine-Basement ( $\mu\text{g}/\text{m}^3$ )				7010 Palatine-Basement ( $\mu\text{g}/\text{m}^3$ )				Church-Basement ( $\mu\text{g}/\text{m}^3$ )				Heaven Supply-Outside ( $\mu\text{g}/\text{m}^3$ )			
	Vinyl Chloride	cis-1,2-DCE	TCE	PCE	Vinyl Chloride	cis-1,2-DCE	TCE	PCE	Vinyl Chloride	cis-1,2-DCE	TCE	PCE	Vinyl Chloride	cis-1,2-DCE	TCE	PCE
3/5-3/6/2013 (a)	0.043 U	0.13 U	<b>0.043</b>	0.23 U	0.037 U	0.11 U	<b>0.034</b>	<b>0.74</b>	0.041 U	0.13 U	<b>0.028</b>	0.22 U	0.037 U	0.12 U	<b>0.079</b>	<b>0.23</b>
3/19/2013	0.034 U	0.11 U	<b>0.24</b>	<b>0.49</b>	NA	NA	NA	NA	NA	NA	NA	NA	0.036 U	0.11 U	<b>0.38</b>	<b>0.79</b>
3/27-3/28/2013	0.034 U	0.11 U	<b>0.048</b>	<b>0.26</b>	0.038 U	0.12 U	<b>0.068</b>	<b>0.45</b>	NA	NA	NA	NA	NA	NA	NA	NA

**TABLE 1**  
**INDOOR AIR ANALYTICAL RESULTS**  
**FORMER HEAVENS SUPPLY COMPANY**  
**SEATTLE, WASHINGTON**

Sample Date	7013 Greenwood-Basement ( $\mu\text{g}/\text{m}^3$ )				7013 Greenwood-Tower ( $\mu\text{g}/\text{m}^3$ )				202 North 70th -Basement ( $\mu\text{g}/\text{m}^3$ )			
	Vinyl Chloride	cis-1,2-DCE	TCE	PCE	Vinyl Chloride	cis-1,2-DCE	TCE	PCE	Vinyl Chloride	cis-1,2-DCE	TCE	PCE
3/5-3/6/2013 (a)	0.040 U	0.12 U	<b>0.025</b>	0.21 U	0.042 U	0.13 U	0.026 U	0.22 U	0.041 U	0.13 U	<b>0.030</b>	0.22 U
3/19/2013	0.035 U	0.11 U	<b>0.039</b>	<b>0.38</b>	NA	NA	NA	NA	0.035 U	0.11 U	<b>0.033</b>	<b>0.57</b>
3/27-3/28/2013	0.034 U	0.11 U	<b>0.026</b>	<b>0.19</b>	NA	NA	NA	NA	0.042 U	0.13 U	<b>0.072</b>	<b>0.89</b>

NA = Not analyzed.

U = The compound was not detected at the reported concentration.

Bold = Detected compound.

 $\mu\text{g}/\text{m}^3$  = Micrograms per cubic meter

cis-1,2-DCE = cis-1,2-Dichloroethene

TCE = Trichloroethene

PCE = Tetrachloroethene

(a) Analyte concentrations sampled on March 5 and March 6, 2013 are considered baseline data

**TABLE 2**  
**SOIL VAPOR ANALYTICAL RESULTS**  
**FORMER HEAVENS SUPPLY COMPANY**  
**SEATTLE, WASHINGTON**

Sample Date	SMW-2 ( $\mu\text{g}/\text{m}^3$ )				SMW-3 ( $\mu\text{g}/\text{m}^3$ )				SMW-4 ( $\mu\text{g}/\text{m}^3$ )				VMW-1 ( $\mu\text{g}/\text{m}^3$ )			
	Vinyl Chloride	cis-1,2-DCE	TCE	PCE	Vinyl Chloride	cis-1,2-DCE	TCE	PCE	Vinyl Chloride	cis-1,2-DCE	TCE	PCE	Vinyl Chloride	cis-1,2-DCE	TCE	PCE
2/28/2013	3.1 U	6.8 U	<b>21</b>	<b>260</b>	3.1 U	6.8 U	<b>41</b>	<b>1,800</b>	3.1 U	6.8 U	<b>18</b>	<b>460</b>	3.1 U	6.8 U	<b>19</b>	<b>4,100</b>
3/6/2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/14/2013	<b>5.7</b>	6.8 U	<b>63</b>	<b>300</b>	3.1 U	6.8 U	<b>57</b>	<b>1,600</b>	3.1 U	6.8 U	<b>56</b>	<b>520</b>	3.1 U	6.8 U	<b>85</b>	<b>1,600</b>
3/19/2013	3.1 U	6.8 U	<b>140</b>	<b>330</b>	3.1 U	6.8 U	<b>67</b>	<b>1,400</b>	3.1 U	6.8 U	<b>52</b>	<b>400</b>	3.1 U	6.8 U	<b>55</b>	<b>360</b>
3/20/2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/27/2013	3.1 U	6.8 U	<b>200</b>	<b>400</b>	3.1 U	6.8 U	<b>210</b>	<b>1,800</b>	3.1 U	6.8 U	<b>230</b>	<b>490</b>	3.1 U	6.8 U	<b>290</b>	<b>520</b>

**TABLE 2**  
**SOIL VAPOR ANALYTICAL RESULTS**  
**FORMER HEAVENS SUPPLY COMPANY**  
**SEATTLE, WASHINGTON**

Sample Date	VMW-2 ( $\mu\text{g}/\text{m}^3$ )				VMW-3 ( $\mu\text{g}/\text{m}^3$ )				VMW-4 ( $\mu\text{g}/\text{m}^3$ )				VP-1 ( $\mu\text{g}/\text{m}^3$ )			
	Vinyl Chloride	cis-1,2-DCE	TCE	PCE	Vinyl Chloride	cis-1,2-DCE	TCE	PCE	Vinyl Chloride	cis-1,2-DCE	TCE	PCE	Vinyl Chloride	cis-1,2-DCE	TCE	PCE
2/28/2013	NA	NA	NA	NA	3.1 U	6.8 U	75	1,500	3.1 U	6.8 U	18	1,400	NA	NA	NA	NA
3/6/2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.1 U	6.8 U	260	1,400
3/14/2013	NA	NA	NA	NA	7.8	6.8 U	91	1,300	3.1 U	6.8 U	53	1,800	NA	NA	NA	NA
3/19/2013	3.1 U	6.8 U	63	110	4.6	6.8 U	130	1,400	3.1 U	6.8 U	75	640	NA	NA	NA	NA
3/20/2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.1 U	6.8 U	62	120
3/27/2013	3.1 U	6.8 U	200	270	3.1 U	6.8 U	240	1,400	3.1 U	6.8 U	200	1,500	3.1 U	6.8 U	200	260

NA = Not analyzed.

U = The compound was not detected at the reported concentration.

Bold = Detected compound.

 $\mu\text{g}/\text{m}^3$  = Micrograms per cubic meter.

cis-1,2-DCE = cis-1,2-Dichloroethene.

TCE = Trichloroethene.

PCE = Tetrachloroethene,

**TABLE 3**  
**GROUNDWATER ANALYTICAL RESULTS**  
**FORMER HEAVENS SUPPLY COMPANY**  
**SEATTLE, WASHINGTON**

	Shallow Wells			Deep Wells					
	SMW-2 EV13030039-01 03/06/2013	SMW-3 EV13030039-02 03/06/2013	SMW-4 EV13030039-03 03/06/2013	MW-2 EV13030127-04 03/21/2013	Dup of MW-2 DUP EV13030127-02 03/21/2013	MW-3 EV13030127-05 03/21/2013	MW-4 EV13030127-03 03/21/2013	MW-5 EV13030127-01 03/21/2013	
	VOLATILES (µg/L)								
<b>EPA Method 8260B</b>									
Dichlorodifluoromethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chloromethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl Chloride	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Bromomethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chloroethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Carbon Tetrachloride	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichlorofluoromethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Carbon Disulfide	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Acetone	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methylene Chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acrylonitrile	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl t-butyl ether	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trans-1,2-Dichloroethene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1-Dichloroethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cis-1,2-Dichloroethene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,2-Dichloropropane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromoform	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,1-Trichloroethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1-Dichloropropene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichloroethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Benzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichloropropane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromomethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromodichloromethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trans-1,3-Dichloropropene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Cis-1,3-Dichloropropene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2-Trichloroethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichloropropane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Tetrachloroethylene	<b>4.4</b>	<b>9.8</b>	<b>4.2</b>	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
Chlorobenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,1,2-Tetrachloroethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
m,p-Xylene	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Styrene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
o-Xylene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromoform	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Isopropylbenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2,2-Tetrachloroethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,3-Trichloropropane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromobenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
n-Propylbenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-Chlorotoluene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,3,5-Trimethylbenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorotoluene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
tert-Butylbenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trimethylbenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
s-Butylbenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
p-Isopropyltoluene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,3-Dichlorobenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,4-Dichlorobenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
n-Butylbenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromo-3-Chloropropane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	<b>3.2</b>
Hexachlorobutadiene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	<b>2.5</b>
Naphthalene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	<b>4.0</b>
1,2,3-Trichlorobenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	<b>4.1</b>

U = The compound was not detected at the reported concentration.

Bold = Detected compound.

µg/L = Micrograms per liter.

**TABLE 4**  
**SVE VAPOR ANALYTICAL RESULTS**  
**FORMER HEAVENS SUPPLY COMPANY**  
**SEATTLE, WASHINGTON**

	SVE-North EV13030086-10 03/14/2013	SVE-North EV13030119-08 03/19/2013	SVE-North EV13030152-04 03/27/2013
<b>VOLATILES (µg/m³)</b>			
EPA Method 8260B			
Dichlorodifluoromethane	9.4 U	9.4 U	9.4 U
Chloromethane	<b>210</b>	23 U	23 U
Vinyl Chloride	<b>5.4</b>	3.1 U	3.1 U
Bromomethane	14 U	14 U	14 U
Chloroethane	12 U	12 U	12 U
Carbon Tetrachloride	2.5 U	2.5 U	2.5 U
Trichlorofluoromethane	4.5 U	4.5 U	4.5 U
1,1-Dichloroethene	1.4 U	1.4 U	1.4 U
Methylene Chloride	68 U	68 U	<b>250</b>
Trans-1,2-Dichloroethene	9.7 U	9.7 U	9.7 U
1,1-Dichloroethane	3.0 U	3.0 U	3.0 U
Cis-1,2-Dichloroethene	6.8 U	6.8 U	6.8 U
2,2-Dichloropropane	4.1 U	4.1 U	4.1 U
Bromochloromethane	11 U	11 U	11 U
Chloroform	<b>120</b>	<b>130</b>	<b>140</b>
1,1,1-Trichloroethane	<b>19</b>	5.9 U	5.9 U
1,1-Dichloropropene	6.7 U	6.7 U	6.7 U
1,2-Dichloroethane	1.4 U	1.4 U	1.4 U
Trichloroethene	<b>21</b>	<b>68</b>	<b>200</b>
1,2-Dichloropropane	6.3 U	6.3 U	6.3 U
Dibromomethane	7.1 U	7.1 U	7.1 U
Bromodichloromethane	5.9 U	5.9 U	5.9 U
Trans-1,3-Dichloropropene	5.8 U	5.8 U	5.8 U
Cis-1,3-Dichloropropene	4.8 U	4.8 U	4.8 U
1,1,2-Trichloroethane	5.2 U	5.2 U	5.2 U
1,3-Dichloropropane	6.6 U	6.6 U	6.6 U
Tetrachloroethylene	<b>400</b>	<b>1,700</b>	<b>5,300</b>
Dibromochloromethane	7.4 U	7.4 U	7.4 U
1,2-Dibromoethane	1.0 U	1.0 U	1.0 U
Chlorobenzene	2.4 U	2.4 U	2.4 U
1,1,1,2-Tetrachloroethane	8.7 U	8.7 U	8.7 U
Bromoform	5.3 U	5.3 U	5.3 U
1,1,2,2-Tetrachloroethane	2.9 U	2.9 U	2.9 U
1,2,3-Trichloropropane	2.3 U	2.3 U	2.3 U
Bromobenzene	4.1 U	4.1 U	<b>24</b>
2-Chlorotoluene	<b>13</b>	<b>19</b>	3.2 U
4-Chlorotoluene	<b>9.2</b>	4.0 U	4.0 U
1,3-Dichlorobenzene	4.1 U	4.1 U	4.1 U
1,4-Dichlorobenzene	4.5 U	<b>8.9</b>	4.5 U
1,2-Dichlorobenzene	2.8 U	<b>21</b>	2.8 U
1,2-Dibromo-3-Chloropropane	<b>12</b>	10 U	10 U
1,2,4-Trichlorobenzene	4.7 U	4.7 U	4.7 U
Hexachlorobutadiene	6.9 U	6.9 U	6.9 U
1,2,3-Trichlorobenzene	4.5 U	<b>6.3</b>	4.5 U

U = Indicates the compound was not detected at the reported concentration.

Bold = Detected compound.

µg/m³ = Micrograms per cubic meter.

**TABLE 5**  
**VGAC INFLUENT VAPOR ANALYTICAL RESULTS**  
**FORMER HEAVENS SUPPLY COMPANY**  
**SEATTLE, WASHINGTON**

	ERH-INF EV13030027-03 03/05/2013	ERH-INF EV13030086-08 03/14/2013	ERH-INF EV13030119-11 03/19/2013	ERH-INF EV13030152-01 03/27/2013
<b>VOLATILES (µg/m³)</b>				
<b>EPA Method 8260B</b>				
Dichlorodifluoromethane	9.4 U	9.4 U	9.4 U	9.4 U
Chloromethane	23 U	<b>240</b>	23 U	23 U
Vinyl Chloride	3.1 U	3.1 U	3.1 U	3.1 U
Bromomethane	14 U	14 U	14 U	14 U
Chloroethane	12 U	12 U	12 U	12 U
Carbon Tetrachloride	2.5 U	2.5 U	2.5 U	2.5 U
Trichlorofluoromethane	4.5 U	4.5 U	<b>21</b>	4.5 U
1,1-Dichloroethene	1.4 U	1.4 U	<b>51</b>	1.4 U
Methylene Chloride	68 U	68 U	68 U	68 U
Trans-1,2-Dichloroethene	9.7 U	9.7 U	<b>120</b>	9.7 U
1,1-Dichloroethane	3.0 U	3.0 U	3.0 U	3.0 U
Cis-1,2-Dichloroethene	6.8 U	<b>80</b>	<b>81</b>	<b>69</b>
2,2-Dichloropropane	4.1 U	4.1 U	4.1 U	4.1 U
Bromochloromethane	11 U	<b>13</b>	11 U	11 U
Chloroform	<b>110</b>	<b>130</b>	<b>150</b>	<b>160</b>
1,1,1-Trichloroethane	5.9 U	5.9 U	5.9 U	5.9 U
1,1-Dichloropropene	6.7 U	6.7 U	6.7 U	6.7 U
1,2-Dichloroethane	<b>12</b>	1.4 U	1.4 U	1.4 U
Trichloroethene	<b>340</b>	<b>79</b>	<b>430</b>	<b>390</b>
1,2-Dichloropropane	6.3 U	6.3 U	6.3 U	6.3 U
Dibromomethane	7.1 U	7.1 U	7.1 U	7.1 U
Bromodichloromethane	5.9 U	5.9 U	5.9 U	5.9 U
Trans-1,3-Dichloropropene	5.8 U	5.8 U	5.8 U	5.8 U
Cis-1,3-Dichloropropene	4.8 U	4.8 U	4.8 U	4.8 U
1,1,2-Trichloroethane	5.2 U	5.2 U	5.2 U	5.2 U
1,3-Dichloropropane	6.6 U	6.6 U	6.6 U	6.6 U
Tetrachloroethylene	<b>83,000</b>	<b>28,000</b>	<b>120,000</b>	<b>110,000</b>
Dibromochloromethane	7.4 U	7.4 U	7.4 U	7.4 U
1,2-Dibromoethane	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	2.4 U	2.4 U	2.4 U	2.4 U
1,1,1,2-Tetrachloroethane	8.7 U	8.7 U	8.7 U	8.7 U
Bromoform	5.3 U	5.3 U	5.3 U	5.3 U
1,1,2,2-Tetrachloroethane	2.9 U	2.9 U	2.9 U	2.9 U
1,2,3-Trichloropropane	2.3 U	2.3 U	2.3 U	2.3 U
Bromobenzene	4.1 U	4.1 U	4.1 U	4.1 U
2-Chlorotoluene	<b>53</b>	3.2 U	3.2 U	<b>12</b>
4-Chlorotoluene	<b>20</b>	4.0 U	<b>11</b>	4.0 U
1,3-Dichlorobenzene	4.1 U	4.1 U	<b>11</b>	4.1 U
1,4-Dichlorobenzene	4.5 U	<b>13</b>	<b>11</b>	<b>12</b>
1,2-Dichlorobenzene	<b>26</b>	2.8 U	2.8 U	2.8 U
1,2-Dibromo-3-Chloropropane	10 U	<b>50</b>	<b>320</b>	10 U
1,2,4-Trichlorobenzene	4.7 U	<b>23</b>	4.7 U	<b>14</b>
Hexachlorobutadiene	6.9 U	6.9 U	<b>36</b>	<b>35</b>
1,2,3-Trichlorobenzene	<b>35</b>	4.5 U	4.5 U	4.5 U

U = Indicates the compound was not detected at the reported concentration.

Bold = Detected compound.

µg/m³ = Micrograms per cubic meter.

**TABLE 6**  
**VGAC MID-POINT INFLUENT VAPOR ANALYTICAL RESULTS**  
**FORMER HEAVENS SUPPLY COMPANY**  
**SEATTLE, WASHINGTON**

	ERH-MID1 EV13030027-02 03/05/2013	ERH-MID2 EV13030086-09 03/14/2013	ERH-MID2 EV13030119-10 03/19/2013	ERH-MID2 EV13030152-02 03/27/2013
<b>VOLATILES (µg/m³)</b>				
<b>EPA Method 8260B</b>				
Dichlorodifluoromethane	9.4 U	9.4 U	9.4 U	9.4 U
Chloromethane	23 U	<b>220</b>	23 U	23 U
Vinyl Chloride	3.1 U	3.1 U	3.1 U	3.1 U
Bromomethane	14 U	14 U	14 U	14 U
Chloroethane	12 U	12 U	12 U	12 U
Carbon Tetrachloride	2.5 U	2.5 U	2.5 U	2.5 U
Trichlorofluoromethane	4.5 U	4.5 U	4.5 U	4.5 U
1,1-Dichloroethene	1.4 U	1.4 U	1.4 U	1.4 U
Methylene Chloride	68 U	68 U	68 U	<b>780</b>
Trans-1,2-Dichloroethene	9.7 U	9.7 U	9.7 U	9.7 U
1,1-Dichloroethane	3.0 U	3.0 U	3.0 U	3.0 U
Cis-1,2-Dichloroethene	6.8 U	6.8 U	6.8 U	6.8 U
2,2-Dichloropropane	<b>10</b>	4.1 U	4.1 U	4.1 U
Bromochloromethane	11 U	11 U	11 U	11 U
Chloroform	<b>100</b>	<b>120</b>	<b>170</b>	<b>120</b>
1,1,1-Trichloroethane	<b>26</b>	5.9 U	5.9 U	5.9 U
1,1-Dichloropropene	6.7 U	6.7 U	6.7 U	6.7 U
1,2-Dichloroethane	<b>12</b>	1.4 U	1.4 U	1.4 U
Trichloroethene	<b>250</b>	<b>25</b>	<b>67</b>	<b>230</b>
1,2-Dichloropropane	6.3 U	6.3 U	6.3 U	6.3 U
Dibromomethane	7.1 U	7.1 U	7.1 U	7.1 U
Bromodichloromethane	5.9 U	5.9 U	5.9 U	5.9 U
Trans-1,3-Dichloropropene	5.8 U	5.8 U	5.8 U	5.8 U
Cis-1,3-Dichloropropene	4.8 U	4.8 U	4.8 U	4.8 U
1,1,2-Trichloroethane	5.2 U	5.2 U	5.2 U	5.2 U
1,3-Dichloropropane	6.6 U	6.6 U	6.6 U	6.6 U
Tetrachloroethylene	<b>130</b>	<b>130</b>	2.3 U	<b>310</b>
Dibromochloromethane	7.4 U	7.4 U	7.4 U	7.4 U
1,2-Dibromoethane	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	2.4 U	2.4 U	2.4 U	2.4 U
1,1,1,2-Tetrachloroethane	8.7 U	8.7 U	8.7 U	8.7 U
Bromoform	5.3 U	5.3 U	5.3 U	5.3 U
1,1,2,2-Tetrachloroethane	2.9 U	2.9 U	2.9 U	2.9 U
1,2,3-Trichloropropane	2.3 U	2.3 U	2.3 U	2.3 U
Bromobenzene	4.1 U	4.1 U	4.1 U	4.1 U
2-Chlorotoluene	<b>67</b>	<b>17</b>	3.2 U	3.2 U
4-Chlorotoluene	<b>18</b>	<b>7.3</b>	4.0 U	4.0 U
1,3-Dichlorobenzene	<b>16</b>	<b>17</b>	<b>8.3</b>	4.1 U
1,4-Dichlorobenzene	4.5 U	4.5 U	<b>8.6</b>	4.5 U
1,2-Dichlorobenzene	<b>27</b>	2.8 U	2.8 U	2.8 U
1,2-Dibromo-3-Chloropropane	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	<b>32</b>	4.7 U	4.7 U	4.7 U
Hexachlorobutadiene	6.9 U	6.9 U	6.9 U	6.9 U
1,2,3-Trichlorobenzene	<b>27</b>	4.5 U	4.5 U	<b>29</b>

U = Indicates the compound was not detected at the reported concentration.

Bold = Detected compound.

µg/m³ = Micrograms per cubic meter.

**TABLE 7**  
**VGAC EFFLUENT VAPOR ANALYTICAL RESULTS**  
**FORMER HEAVENS SUPPLY COMPANY**  
**SEATTLE, WASHINGTON**

	ERH-EFF EV13030027-01 03/05/2013	ERH-EFF EV13030086-07 3/14/2013	ERH-EFF EV13030119-09 03/19/2013	ERH-EFF EV13030152-03 03/27/2013
<b>VOLATILES (µg/m³)</b>				
<b>Method EPA 8260B</b>				
Dichlorodifluoromethane	9.4 U	9.4 U	9.4 U	9.4 U
Chloromethane	23 U	<b>220</b>	23 U	23 U
Vinyl Chloride	3.1 U	<b>33</b>	3.1 U	3.1 U
Bromomethane	14 U	14 U	14 U	14 U
Chloroethane	12 U	12 U	12 U	12 U
Carbon Tetrachloride	2.5 U	2.5 U	2.5 U	2.5 U
Trichlorofluoromethane	4.5 U	4.5 U	4.5 U	4.5 U
1,1-Dichloroethene	1.4 U	1.4 U	1.4 U	1.4 U
Methylene Chloride	68 U	68 U	68 U	<b>230</b>
Trans-1,2-Dichloroethene	9.7 U	9.7 U	9.7 U	9.7 U
1,1-Dichloroethane	3.0 U	3.0 U	3.0 U	3.0 U
Cis-1,2-Dichloroethene	6.8 U	<b>20</b>	<b>100</b>	6.8 U
2,2-Dichloropropane	4.1 U	4.1 U	4.1 U	4.1 U
Bromochloromethane	11 U	11 U	11 U	11 U
Chloroform	<b>110</b>	<b>120</b>	<b>130</b>	<b>140</b>
1,1,1-Trichloroethane	<b>29</b>	5.9 U	5.9 U	5.9 U
1,1-Dichloropropene	6.7 U	6.7 U	6.7 U	6.7 U
1,2-Dichloroethane	<b>17</b>	1.4 U	1.4 U	1.4 U
Trichloroethene	<b>430</b>	<b>28</b>	<b>78</b>	<b>200</b>
1,2-Dichloropropane	6.3 U	6.3 U	6.3 U	6.3 U
Dibromomethane	7.1 U	7.1 U	7.1 U	7.1 U
Bromodichloromethane	5.9 U	5.9 U	5.9 U	5.9 U
Trans-1,3-Dichloropropene	5.8 U	5.8 U	5.8 U	5.8 U
Cis-1,3-Dichloropropene	4.8 U	4.8 U	4.8 U	4.8 U
1,1,2-Trichloroethane	5.2 U	5.2 U	5.2 U	5.2 U
1,3-Dichloropropane	6.6 U	6.6 U	6.6 U	6.6 U
Tetrachloroethylene	<b>160</b>	2.3 U	<b>100</b>	<b>330</b>
Dibromochloromethane	7.4 U	7.4 U	7.4 U	7.4 U
1,2-Dibromoethane	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	2.4 U	2.4 U	2.4 U	2.4 U
1,1,1,2-Tetrachloroethane	8.7 U	8.7 U	8.7 U	8.7 U
Bromoform	5.3 U	5.3 U	5.3 U	5.3 U
1,1,2,2-Tetrachloroethane	2.9 U	2.9 U	2.9 U	2.9 U
1,2,3-Trichloropropane	2.3 U	2.3 U	2.3 U	2.3 U
Bromobenzene	4.1 U	4.1 U	4.1 U	4.1 U
2-Chlorotoluene	<b>130</b>	<b>17</b>	<b>21</b>	3.2 U
4-Chlorotoluene	<b>22</b>	<b>12</b>	4.0 U	4.0 U
1,3-Dichlorobenzene	<b>20</b>	4.1 U	4.1 U	4.1 U
1,4-Dichlorobenzene	<b>27</b>	<b>12</b>	4.5 U	<b>17</b>
1,2-Dichlorobenzene	<b>43</b>	<b>25</b>	2.8 U	2.8 U
1,2-Dibromo-3-Chloropropane	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	<b>43</b>	4.7 U	<b>26</b>	4.7 U
Hexachlorobutadiene	6.9 U	6.9 U	6.9 U	6.9 U
1,2,3-Trichlorobenzene	4.5 U	4.5 U	4.5 U	4.5 U

U = Indicates the compound was not detected at the reported concentration.

Bold = Detected compound.

µg/m³ = Micrograms per cubic meter.

**TABLE 8**  
**SMITH PROPERTY SOIL ANALYTICAL RESULTS**  
**FORMER HEAVENS SUPPLY COMPANY**  
**SEATTLE, WASHINGTON**

	Smith Driveway Excavation					
	E-Base WD75F 02/12/2013	E-WALL WD75E 02/13/2013	S-WALL-E WD75D 02/12/2013	S-WALL-W WD75C 02/12/2013	W-BASE WD75B 02/12/2013	W-WALL WD75A 02/12/2013
	VOCs ( $\mu\text{g}/\text{kg}$ )					
<b>Method 8260C</b>						
Chloromethane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	0.9 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Vinyl Chloride	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	1.8 U	<b>2.4</b>	2.1 U	2.0 U	<b>2.0</b>	<b>2.0</b>
Acetone	<b>42</b>	<b>290</b>	5.2 U	<b>120</b>	<b>59</b>	<b>82</b>
Carbon Disulfide	0.9 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
1,1-Dichloroethene	0.9 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
1,1-Dichloroethane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	4.5 U	<b>7.6</b>	5.2 U	4.9 U	4.9 U	5.0 U
1,1,1-Trichloroethane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Acetate	4.5 U	5.8 U	5.2 U	4.9 U	4.9 U	5.0 U
Bromodichloromethane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chloroethylvinylether	4.5 U	5.8 U	5.2 U	4.9 U	4.9 U	5.0 U
Bromoform	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Methyl-2-Pentanone (MIBK)	4.5 U	5.8 U	5.2 U	4.9 U	4.9 U	5.0 U
2-Hexanone	4.5 U	5.8 U	5.2 U	4.9 U	4.9 U	5.0 U
Tetrachloroethene	<b>9.3</b>	<b>8.9</b>	<b>30</b>	<b>1,500</b>	<b>61</b>	<b>19</b>
1,1,2,2-Tetrachloroethane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	0.9 U	<b>3.4</b>	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	1.8 U	2.3 U	2.1 U	2.0 U	2.0 U	2.0 U
m, p-Xylene	0.9 U	<b>4.8</b>	1.0 U	1.0 U	1.0 U	1.0 U
o-Xylene	0.9 U	<b>2.5</b>	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Acrolein	45 UJ	58 UJ	52 UJ	49 UJ	49 UJ	50 UJ
Iodomethane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoethane	1.8 UJ	2.3 UJ	2.1 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Acrylonitrile	4.5 U	5.8 U	5.2 U	4.9 U	4.9 U	5.0 U
1,1-Dichloropropene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1,2-Tetrachloroethane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4.5 U	5.8 U	5.2 U	4.9 U	4.9 U	5.0 U
1,2,3-Trichloropropene	1.8 U	2.3 U	2.1 U	2.0 U	2.0 U	2.0 U
trans-1,4-Dichloro-2-butene	4.5 U	5.8 U	5.2 U	4.9 U	4.9 U	5.0 U
1,3,5-Trimethylbenzene	0.9 U	<b>1.2</b>	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	0.9 U	<b>2.4</b>	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	4.5 U	5.8 U	5.2 U	4.9 U	4.9 U	5.0 U
1,2-Dibromoethane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
2,2-Dichloropropane	0.9 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
1,3-Dichloropropane	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U

**TABLE 8**  
**SMITH PROPERTY SOIL ANALYTICAL RESULTS**  
**FORMER HEAVENS SUPPLY COMPANY**  
**SEATTLE, WASHINGTON**

Page 2 of 4

	Smith Driveway Excavation					
	E-Base WD75F 02/12/2013	E-WALL WD75E 02/13/2013	S-WALL-E WD75D 02/12/2013	S-WALL-W WD75C 02/12/2013	W-BASE WD75B 02/12/2013	W-WALL WD75A 02/12/2013
Isopropylbenzene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
n-Propylbenzene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
sec-Butylbenzene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Isopropyltoluene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
n-Butylbenzene	0.9 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	4.5 U	5.8 U	5.2 U	4.9 U	4.9 U	5.0 U
Naphthalene	4.5 U	5.8 U	5.2 U	4.9 U	4.9 U	5.0 U
1,2,3-Trichlorobenzene	4.5 U	5.8 U	5.2 U	4.9 U	4.9 U	5.0 U

**TABLE 8**  
**SMITH PROPERTY SOIL ANALYTICAL RESULTS**  
**FORMER HEAVENS SUPPLY COMPANY**  
**SEATTLE, WASHINGTON**

	Bamboo Soil Sampling		
	B-1	B-2	B-3
	WD47A	WD47B	WD47C
	02/11/2013	02/11/2013	02/11/2013
<b>VOCs (µg/kg)</b>			
<b>Method 8260C</b>			
Chloromethane	1.1 U	1.0 U	1.1 U
Bromomethane	1.1 U	1.0 U	1.1 U
Vinyl Chloride	1.1 U	1.0 U	1.1 U
Chloroethane	1.1 U	1.0 U	1.1 U
Methylene Chloride	2.3 U	2.0 U	2.2 U
Acetone	<b>92</b>	<b>98</b>	<b>180</b>
Carbon Disulfide	1.1 U	1.0 U	1.1 U
1,1-Dichloroethene	1.1 U	1.0 U	1.1 U
1,1-Dichloroethane	1.1 U	1.0 U	1.1 U
trans-1,2-Dichloroethene	1.1 U	1.0 U	1.1 U
cis-1,2-Dichloroethene	1.1 U	1.0 U	1.1 U
Chloroform	1.1 U	1.0 U	1.1 U
1,2-Dichloroethane	1.1 U	1.0 U	1.1 U
2-Butanone	<b>8.0</b>	<b>5.4</b>	<b>14</b>
1,1,1-Trichloroethane	1.1 U	1.0 U	1.1 U
Carbon Tetrachloride	1.1 U	1.0 U	1.1 U
Vinyl Acetate	5.7 U	5.1 U	5.6 U
Bromodichloromethane	1.1 U	1.0 U	1.1 U
1,2-Dichloropropane	1.1 U	1.0 U	1.1 U
cis-1,3-Dichloropropene	1.1 U	1.0 U	1.1 U
Trichloroethene	1.1 U	1.0 U	1.1 U
Dibromochloromethane	1.1 U	1.0 U	1.1 U
1,1,2-Trichloroethane	1.1 U	1.0 U	1.1 U
Benzene	<b>2.3</b>	1.0 U	<b>1.8</b>
trans-1,3-Dichloropropene	1.1 U	1.0 U	1.1 U
2-Chloroethylvinylether	5.7 U	5.1 U	5.6 U
Bromoform	1.1 U	1.0 U	1.1 U
4-Methyl-2-Pentanone (MIBK)	5.7 U	5.1 U	5.6 U
2-Hexanone	5.7 U	5.1 U	5.6 U
Tetrachloroethene	<b>2.3</b>	<b>3.0</b>	1.1 U
1,1,2,2-Tetrachloroethane	1.1 U	1.0 U	1.1 U
Toluene	<b>1.9</b>	1.0 U	<b>3.2</b>
Chlorobenzene	1.1 U	1.0 U	1.1 U
Ethylbenzene	1.1 U	1.0 U	1.1 U
Styrene	1.1 U	1.0 U	1.1 U
Trichlorofluoromethane	1.1 U	1.0 U	1.1 U
1,1,2-Trichloro-1,2,2-trifluoroethane	2.3 U	2.0 U	2.2 U
m, p-Xylene	1.1 U	1.0 U	<b>2.3</b>
o-Xylene	1.1 U	1.0 U	1.1 U
1,2-Dichlorobenzene	1.1 U	1.0 U	1.1 U
1,3-Dichlorobenzene	1.1 U	1.0 U	1.1 U
1,4-Dichlorobenzene	1.1 U	1.0 U	1.1 U
Acrolein	57 U	51 U	56 U
Iodomethane	1.1 U	1.0 U	1.1 U
Bromoethane	2.3 U	2.0 U	2.2 U
Acrylonitrile	5.7 U	5.1 U	5.6 U
1,1-Dichloropropene	1.1 U	1.0 U	1.1 U
Dibromomethane	1.1 U	1.0 U	1.1 U
1,1,1,2-Tetrachloroethane	1.1 U	1.0 U	1.1 U
1,2-Dibromo-3-chloropropane	5.7 U	5.1 U	5.6 U
1,2,3-Trichloropropane	2.3 U	2.0 U	2.2 U
trans-1,4-Dichloro-2-butene	5.7 U	5.1 U	5.6 U
1,3,5-Trimethylbenzene	1.1 U	1.0 U	1.1 U
1,2,4-Trimethylbenzene	1.1 U	1.0 U	<b>1.5</b>
Hexachlorobutadiene	5.7 U	5.1 U	5.6 U
1,2-Dibromoethane	1.1 U	1.0 U	1.1 U
Bromochloromethane	1.1 U	1.0 U	1.1 U
2,2-Dichloropropane	1.1 U	1.0 U	1.1 U
1,3-Dichloropropane	1.1 U	1.0 U	1.1 U

**TABLE 8**  
**SMITH PROPERTY SOIL ANALYTICAL RESULTS**  
**FORMER HEAVENS SUPPLY COMPANY**  
**SEATTLE, WASHINGTON**

	Bamboo Soil Sampling		
	B-1 WD47A 02/11/2013	B-2 WD47B 02/11/2013	B-3 WD47C 02/11/2013
Isopropylbenzene	1.1 U	1.0 U	1.1 U
n-Propylbenzene	1.1 U	1.0 U	1.1 U
Bromobenzene	1.1 U	1.0 U	1.1 U
2-Chlorotoluene	1.1 U	1.0 U	1.1 U
4-Chlorotoluene	1.1 U	1.0 U	1.1 U
tert-Butylbenzene	1.1 U	1.0 U	1.1 U
sec-Butylbenzene	1.1 U	1.0 U	1.1 U
4-Isopropyltoluene	1.1 U	1.0 U	1.1 U
n-Butylbenzene	1.1 U	1.0 U	1.1 U
1,2,4-Trichlorobenzene	5.7 U	5.1 U	5.6 U
Naphthalene	5.7 U	5.1 U	5.6 U
1,2,3-Trichlorobenzene	5.7 U	5.1 U	5.6 U

U = The compound was not detected at the reported concentration.

UJ = The analyte was not detected in the sample; the reported sample reporting limit is an estimate.

**Bold** = Detected compound.

µg/kg = Micrograms per kilogram.

ATTACHMENT 1

## **TRS ERH Construction/Start-Up Report**

March 29, 2013

Ms. Mindy DeYoung  
Riddell Williams P.S.  
1001 Fourth Avenue, Suite 4500  
Seattle, WA 98154-1192

**Subject: ERH Construction/Start-up Report**  
**Heavens Supply Site**  
**7009 Greenwood Avenue, Seattle, Washington 98103**  
**November 12, 2013 to March 25, 2013**

Dear Ms. DeYoung,

This letter report contains a brief description of the Electrical Resistance Heating (ERH) remediation system construction, start-up activities and initial operations performed at 7009 Greenwood Avenue, Seattle, Washington. The time period addressed in this report is from November 12, 2012 through March 25, 2013.

### **System Construction**

The subsurface portion of the installation of the ERH system began on November 12, 2012. Both public and private utility locating services were used to inspect the treatment area prior to the start of drilling activities. The utility locate confirmed the location of a sewer discharge line that ran near the design location of several electrodes. These electrode locations were shifted a few feet to avoid the pipe. Once the subsurface hazards were identified, the TRS Group, Inc. (TRS) drilling subcontractor, Cascade Drilling, began the installation of 73 electrodes and 12 temperature monitoring points (TMPs) with direct oversight by TRS. The majority of the drilling work was completed by December 13, 2012 and the final Electrode (L13) was drilled on December 20, 2012 using a limited access rig.

When drilling operations began, a temporary galvanized fence surrounded the perimeter of the site. The replacement of the temporary fence with a solid wood panel fence began on December 18, 2012. A large 20-foot gate was installed to provide access to equipment for operational activities, such as granular activated carbon (GAC) change outs. The fence installation was completed on December 21, 2012.

During electrode installation, Landau and their subcontractor, Glacier Environmental, completed the installation of a series of soil vapor extraction (SVE) trenches on the northern, eastern, and southern property boundaries. The trench work began the week of November 12, 2012 and was completed in early December.

Surface installation activities began on December 18, 2013. Surface installation activities included: construction of electrode wetting system manifold; vapor recovery manifold construction; installation of a layer of 2" rigid foam insulation; wiring of equipment and gauges, wiring of TMP and drip field boxes and, interlock wiring and programming, third party inspection process, and electrode supply

cable connection. On December 19, 2012, TRS conducted the successful placement of each piece of ERH process equipment. This included the power control unit (PCU), condenser/cooling tower, 20 ft storage box, 50 hp vacuum blower and two auto-transformers.

Four, 2,000-pound vapor phase granular activated carbon vessels (VGAC) and two, 200-pound liquid phase granular activated carbon (LGAC) vessels were delivered to the site on January 21, 2013. The VGAC vessels were installed on the effluent side of the vapor recovery blower in a series-parallel arrangement. The LGAC vessels were installed in series prior to the approved stormwater discharge location.

A security system was installed along the fence line and surrounds the equipment compound and electrode areas. The system consists of 8 motion-detecting sensors. If the sensors detect movement within the coverage area, the PCU load contactor will open and discontinue electrical energy application to the subsurface. TRS is notified of this action by an automated telephone call. The security system also provides an overhead camera and 7 perimeter cameras so that the site can be remotely observed. The cameras are running in real time and can be accessed from off-site locations. The camera system installation, security system installation and programming were completed on January 21, 2013.

The Landau operated SVE system blower discharge was connected to the TRS condenser inlet piping on January 28, 2013. The surface installation was successfully completed on February 25, 2013. The electrodes, equipment and other site features are shown in Figure 1.

## **System Startup Activities**

System startup and optimization began on February 25, 2013. This phase of the work consisted of energizing the condenser / heat exchanger, cooling tower, vapor recovery blowers, the temperature monitoring points and water addition control systems. This was followed up with functionality testing of the ERH equipment and interlocks and the evaluation of subsurface energy application. The vapor recovery blowers were initially started on February 28, 2013 and have been running full time for approximately one week prior to the initial application of energy to the subsurface.

The condenser's cooling tower was filled with water and condenser operations were initiated. Items inspected included leak checks, functionality (hand/off/auto switches, float switches, valves), and the ability to maintain normal operations. The inspection of the system also verified the proper operational parameters (flow, differential pressures, and applied field vacuum) on each gauge and valve. Once proper operations of the components were confirmed, ERH equipment interlock testing commenced. Testing of the ERH equipment interlocks was completed on March 6, 2013 and confirmed that each interlock performed as designed. The final third party inspection certification was received on March 6, 2013.

TRS initiated electrical energy application to the subsurface on February 26, 2013. During initial energy application TRS monitored cable/electrode amperages, applied voltages to the subsurface, and the overall application of ERH to the treatment volume. Concurrent with the ERH system testing, voltage safety tests were performed. These tests were done to evaluate surface conditions for the presence of accessible voltage. Areas where personnel may walk or touch surfaces were evaluated for exposed voltage potential. Any areas exceeding the TRS administrative safety limits were bonded or isolated from touch to ensure the safe application of ERH.

The site was established as electrically safe and cleared for uninterrupted on March 13, 2013.

## ERH Application Summary

The ERH system operational parameters for start-up period through March 25, 2013 are presented in **Table 1**, which includes baseline data for comparison.

**Table 1. ERH System Operating Parameters**

ERH System Parameters	March 25, 2013	February 25, 2013
Weekly Average Power (kW)	982	0
Cumulative Energy Applied (kWh)	204,411	0
Average Subsurface Temperature (°C)	31.4	16.4
Average Vapor System Flow Rate (scfm)	485	0

TRS personnel were onsite throughout the reporting period. Tasks accomplished during the reporting period included:

- Deployment of sound abatement measures to reduce the noise impact of the system to adjacent residences. These measures included insulated equipment housings, blower silencers, variable frequency drives, various sound walls, and adjusting operational approaches.
- Collection of system operation data daily and optimization of system performance.
- Completion of voltage surveys and confirmation all exposed voltage potentials are below TRS administrative levels.
- Completed restricted zone training for TRS and Landau personnel requiring site access.

The PCU, vapor recovery and vapor abatement systems have operated within design parameters and in compliance with the Puget Sound Clean Air Agency (PSCAA) air permit conditions during the reporting period.

## Temperatures

Treatment region temperatures are monitored at twelve temperature monitoring points (TMPs), which contain thermocouples arrayed vertically. The average subsurface temperature for the site prior to the start of power application was 16.4 degrees Celsius (°C). The average subsurface temperature at the end of this reporting period was 31.4 °C, an increase of 15 °C since the start of operations. The highest observed subsurface temperature for this reporting period was 54.2°C, at a depth of 28 feet below grade surface (ft bgs) at TMP E9 on March 24, 2013.

For the purpose of adequately illustrating the temperature change, the data was broken into twelve separate graphs based on the TMP location. Temperatures relative to depth for each TMP are presented in **Figures 2a** through **2l**. Average subsurface temperature over time is presented in **Figure 3**.

## Power and Energy

The PCU averaged 982 kilowatts (kW) of applied power to the treatment volume during the reporting period. A total of 204,411 kilowatt-hours (kWh) of energy have been applied to the subsurface as of March 25, 2013. This is approximately 6% of the design energy input.

## **ERH Vapor Recovery**

The vapor stream flow rate as measured after the vapor recovery blower averaged 485 standard cubic feet per minute (scfm) throughout the operating period.

Vapor samples are collected with the other operational data and analyzed onsite using a photo ionization detector (PID) as well as by laboratory analysis. This data and information is used to measure system performance (i.e. pounds of contaminant removed), air permit compliance, and will also be factored into future system operations and adjustments. Mass Removal estimates based on both PID readings as well as laboratory data will be provided in future biweekly reports.

## **Planned Activities**

TRS personnel will visit the site the week of March 25, 2013 to collect operations data, optimize the system, and perform weekly maintenance.

Should you have any questions concerning this report, or if you would like any additional information, please contact either me or Lynette Stauch by phone at (720) 940-4885 and (505) 281-9553, respectively.

Sincerely,  
TRS Group, Inc.

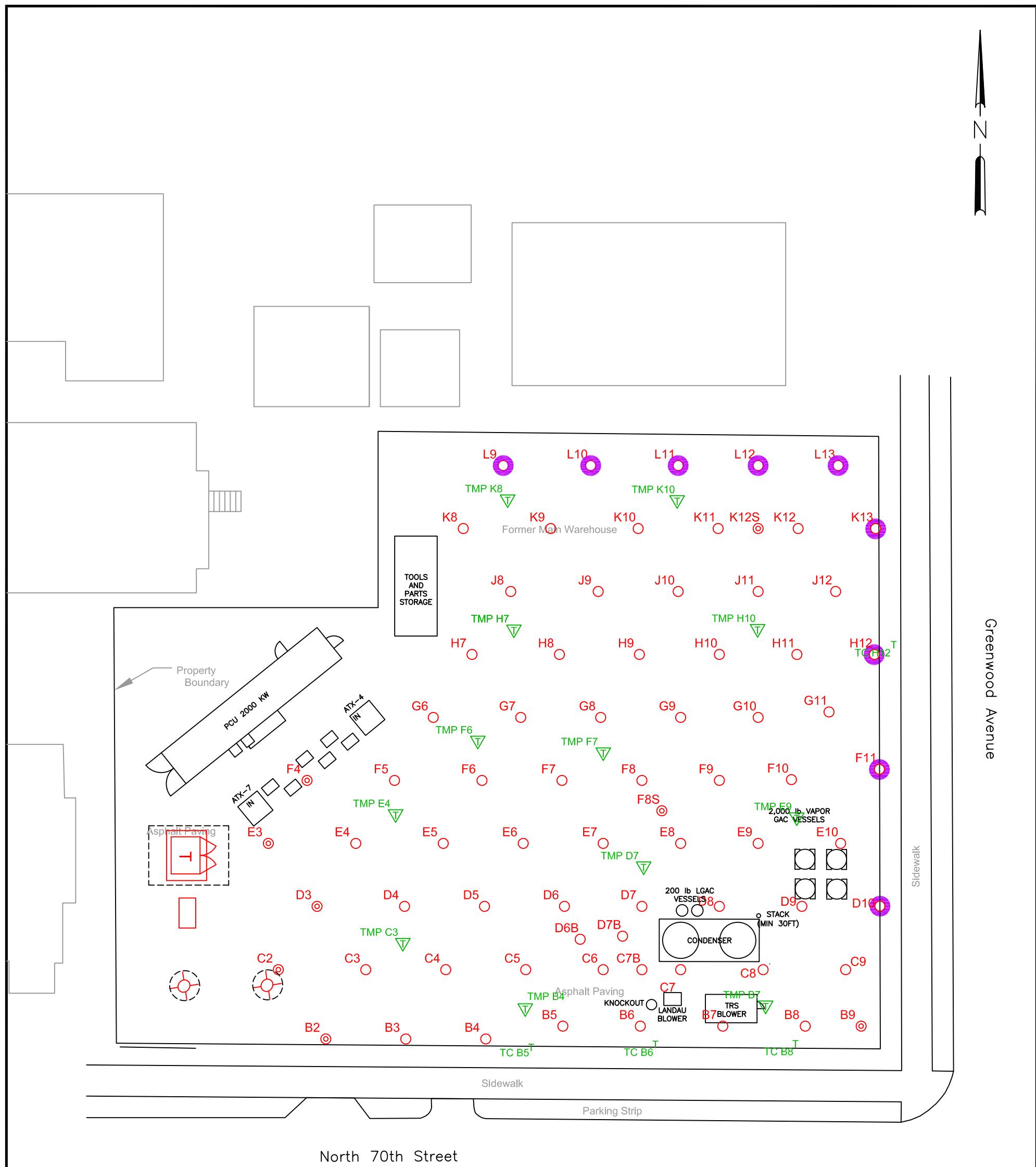


Jeff Brink  
Project Manager

Attachments: Figure 1 – Site Plan  
Figure 2a – TMP B4 Temperature vs. Depth  
Figure 2b – TMP B7 Temperature vs. Depth  
Figure 2c – TMP C3 Temperature vs. Depth  
Figure 2d – TMP D7 Temperature vs. Depth  
Figure 2e – TMP E4 Temperature vs. Depth  
Figure 2f – TMP E9 Temperature vs. Depth  
Figure 2g – TMP F6 Temperature vs. Depth  
Figure 2h – TMP F7 Temperature vs. Depth  
Figure 2i – TMP H7 Temperature vs. Depth  
Figure 2j – TMP H10 Temperature vs. Depth  
Figure 2k – TMP K8 Temperature vs. Depth  
Figure 2l – TMP K10 Temperature vs. Depth  
Figure 3 – Average Subsurface Temperature vs. Time

cc: Lynette Stauch, TRS  
Piper Roelen, Landau  
Tim Warner, TRS

**ATTACHMENTS**



## LEGEND

- DEEP ELECTRODE (56)
- DUAL DEEP ELECTRODE (9)
- ◎ SHALLOW ELECTRODE (8)
- ▽ TEMPERATURE MONITORING POINT (12)
- THERMOCOUPLE (4)

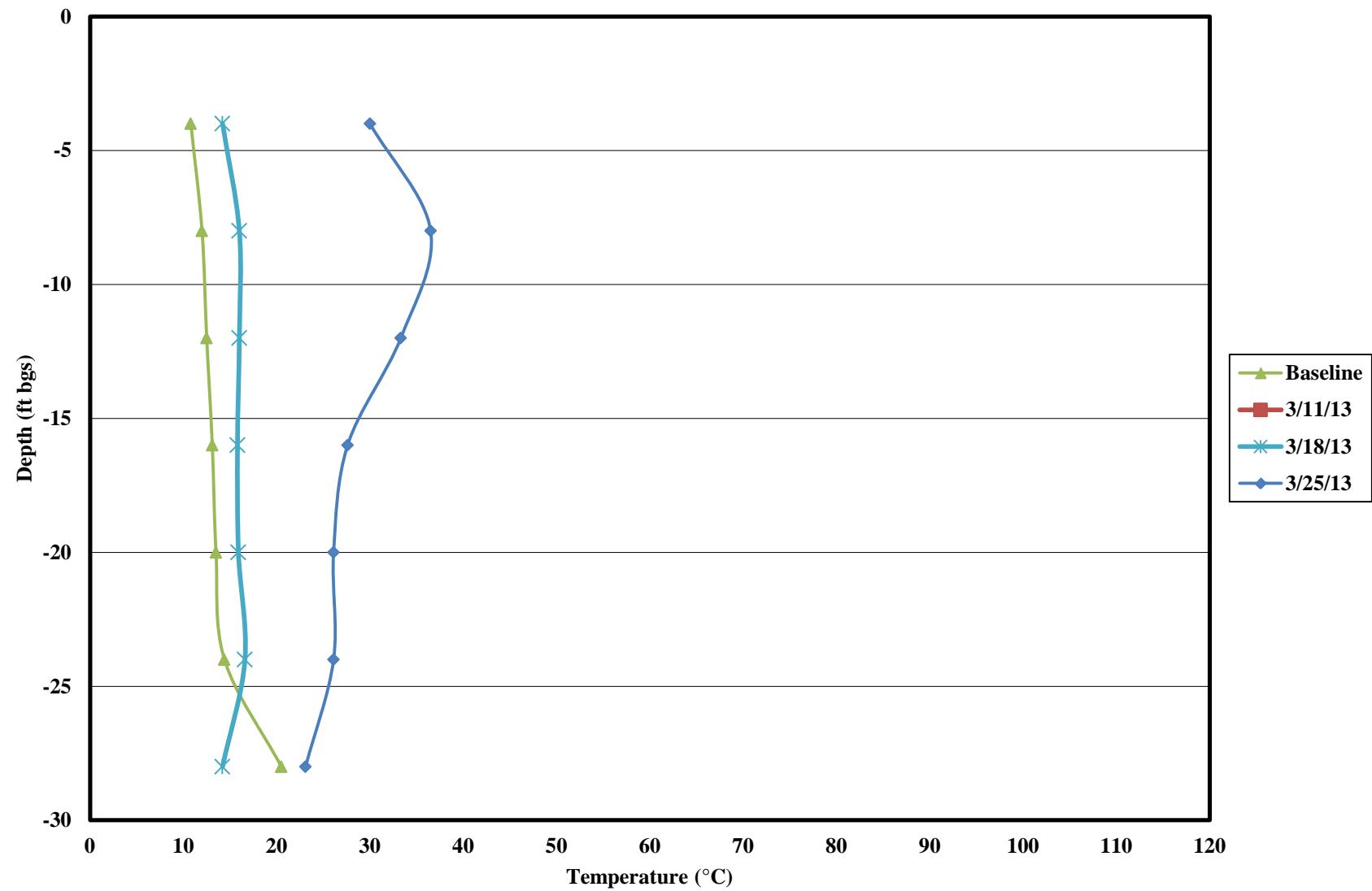
0' 20' 40'



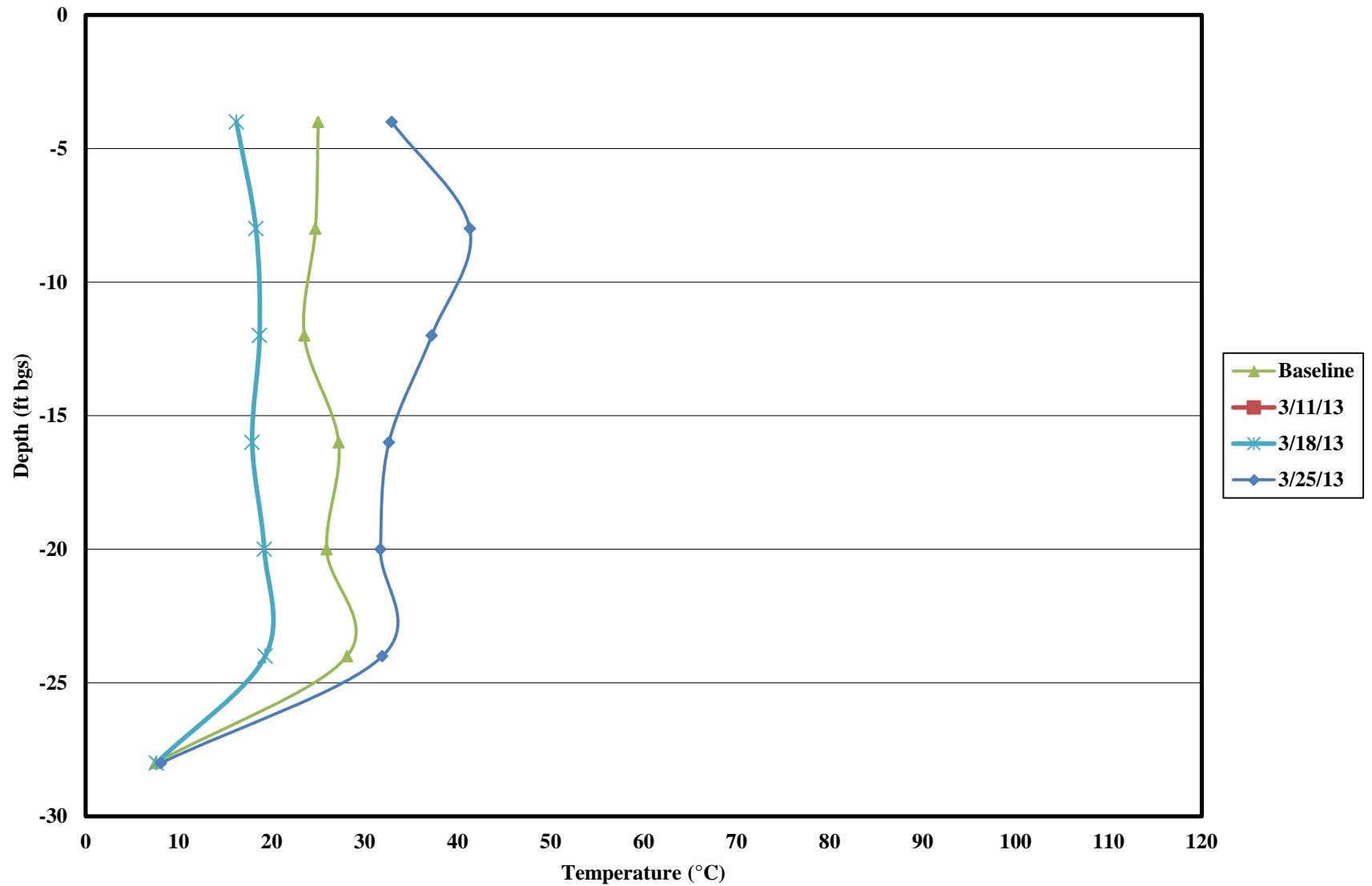
**TRS**  
Accelerating Value

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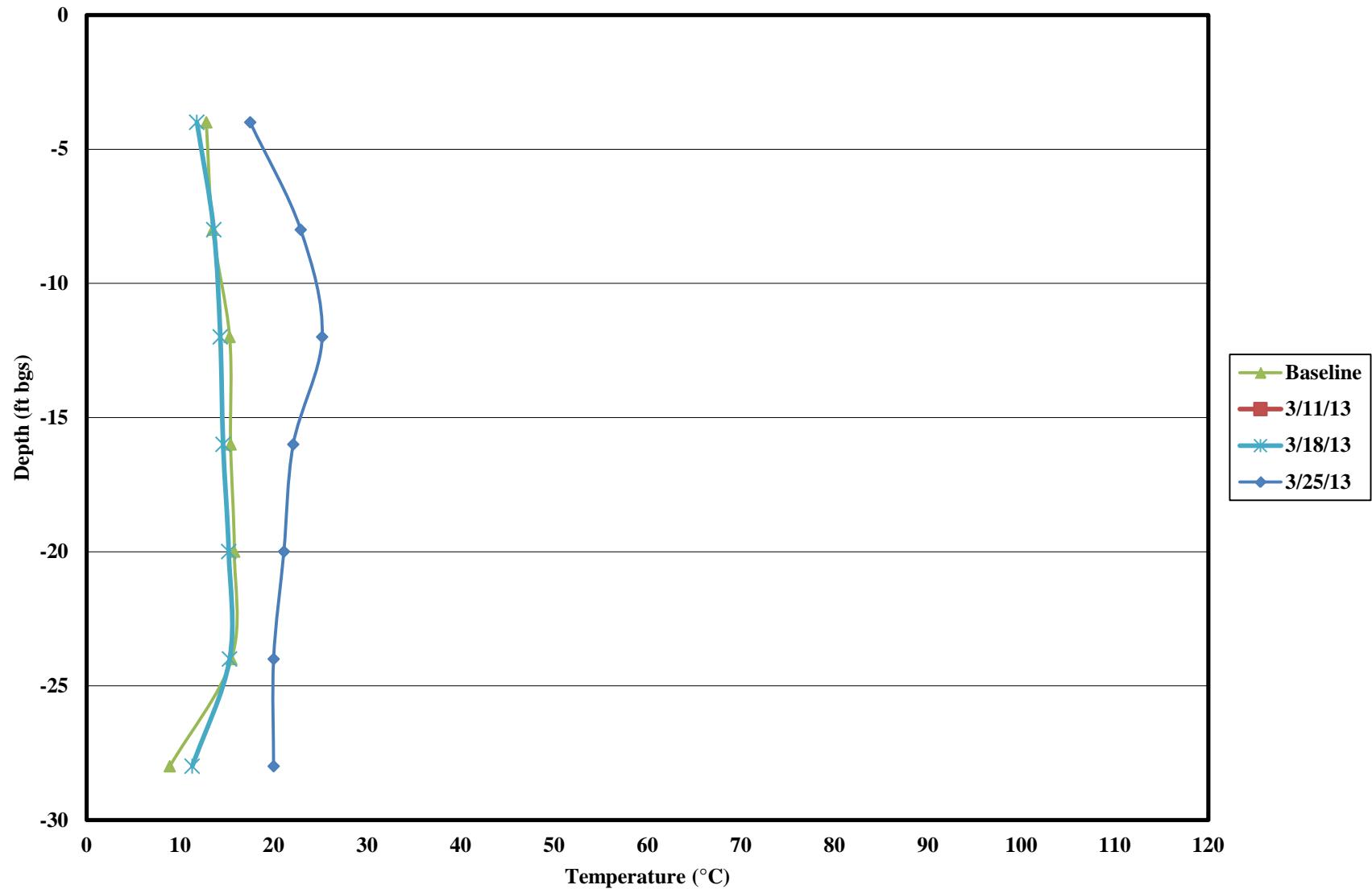
DESIGNED BY C. CROWNOVER	FOR	HEAVEN SUPPLY SEATTLE, WASHINGTON
DRAWN BY C. CROWNOVER		
CHECKED BY TRS		
PROJECT MANAGER J. BRINK		
APPROVED FOR IMPLEMENTATION		DATE 12/06/11 PROJECT SEA19
BY _____		
FOR _____		DATE
SHEET		<b>FIGURE 1</b>



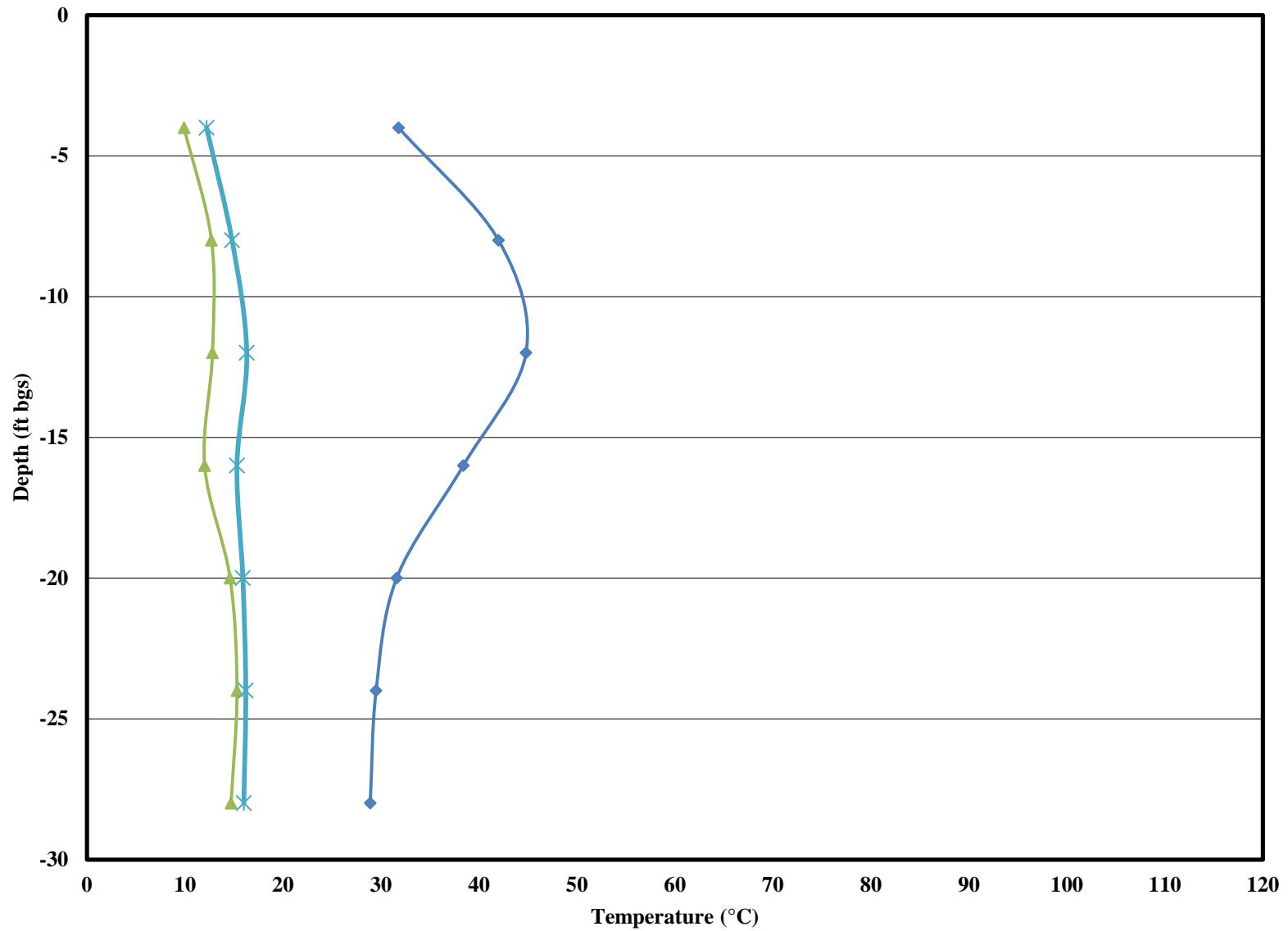
**Figure 2a.** TMP B4 Temperature vs. Depth



**Figure 2b.** TMP B7 Temperature vs. Depth



**Figure 2c.** TMP C3 Temperature vs. Depth



**Figure 2d.** TMP D7 Temperature vs. Depth

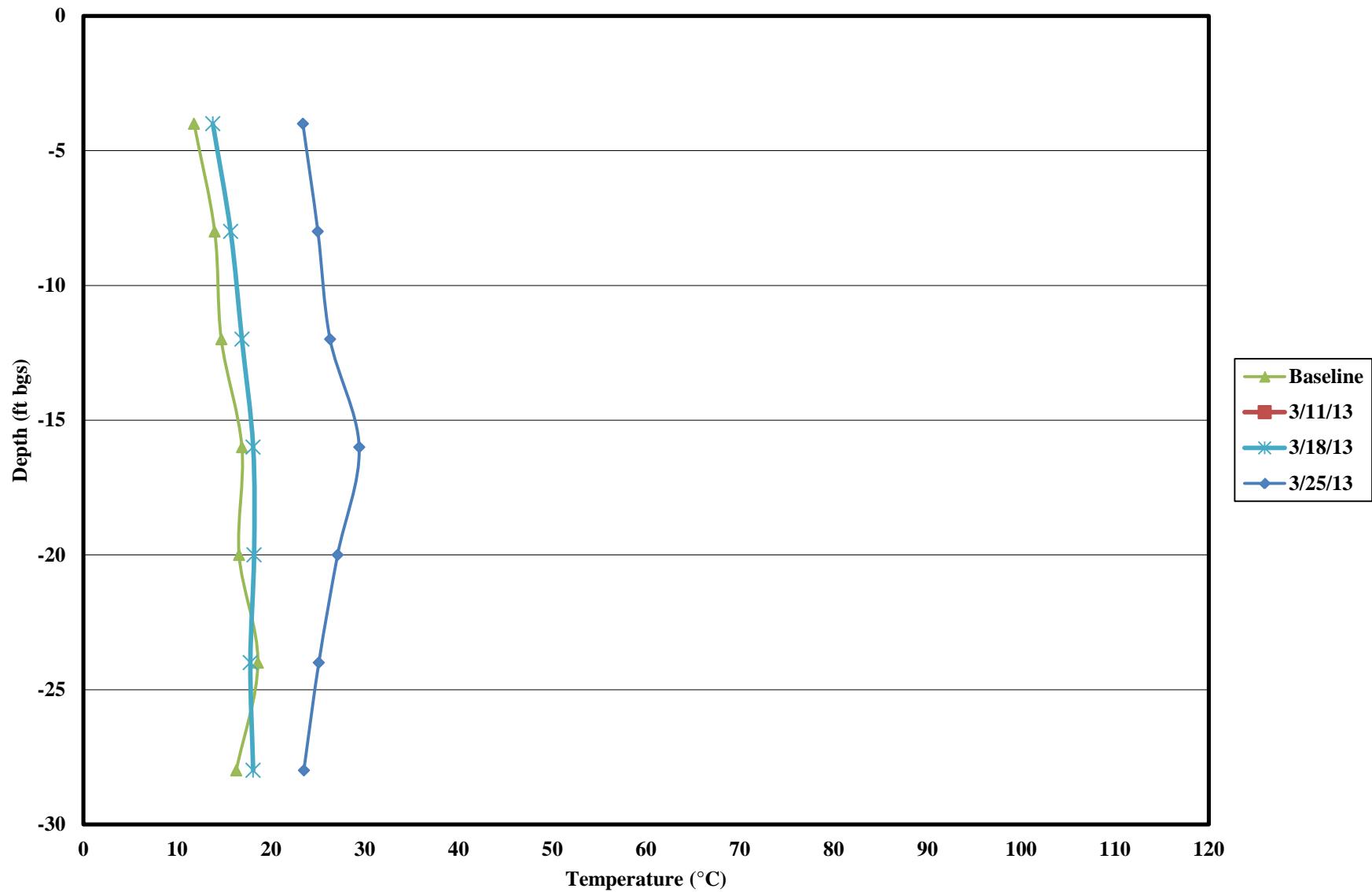
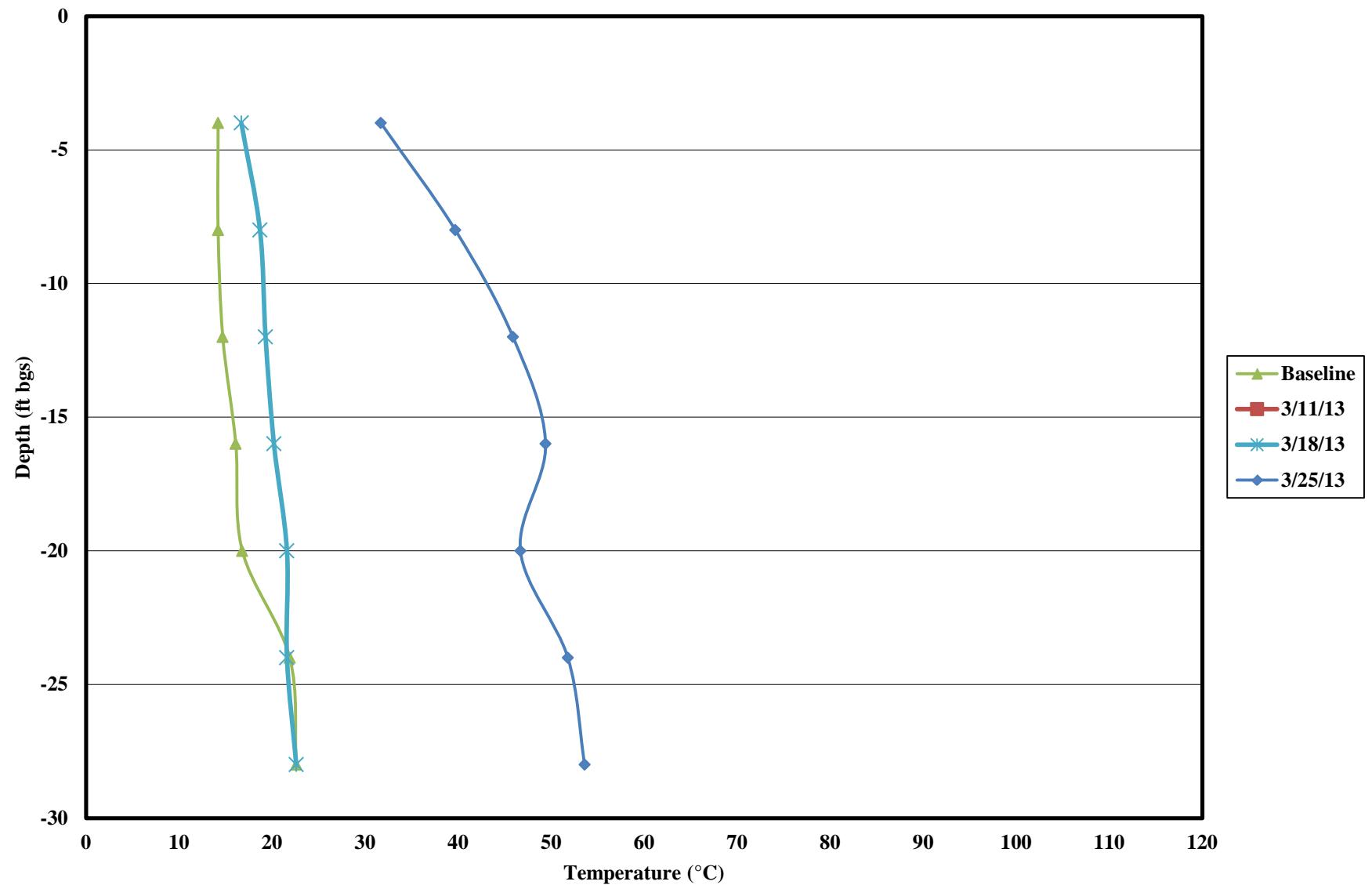
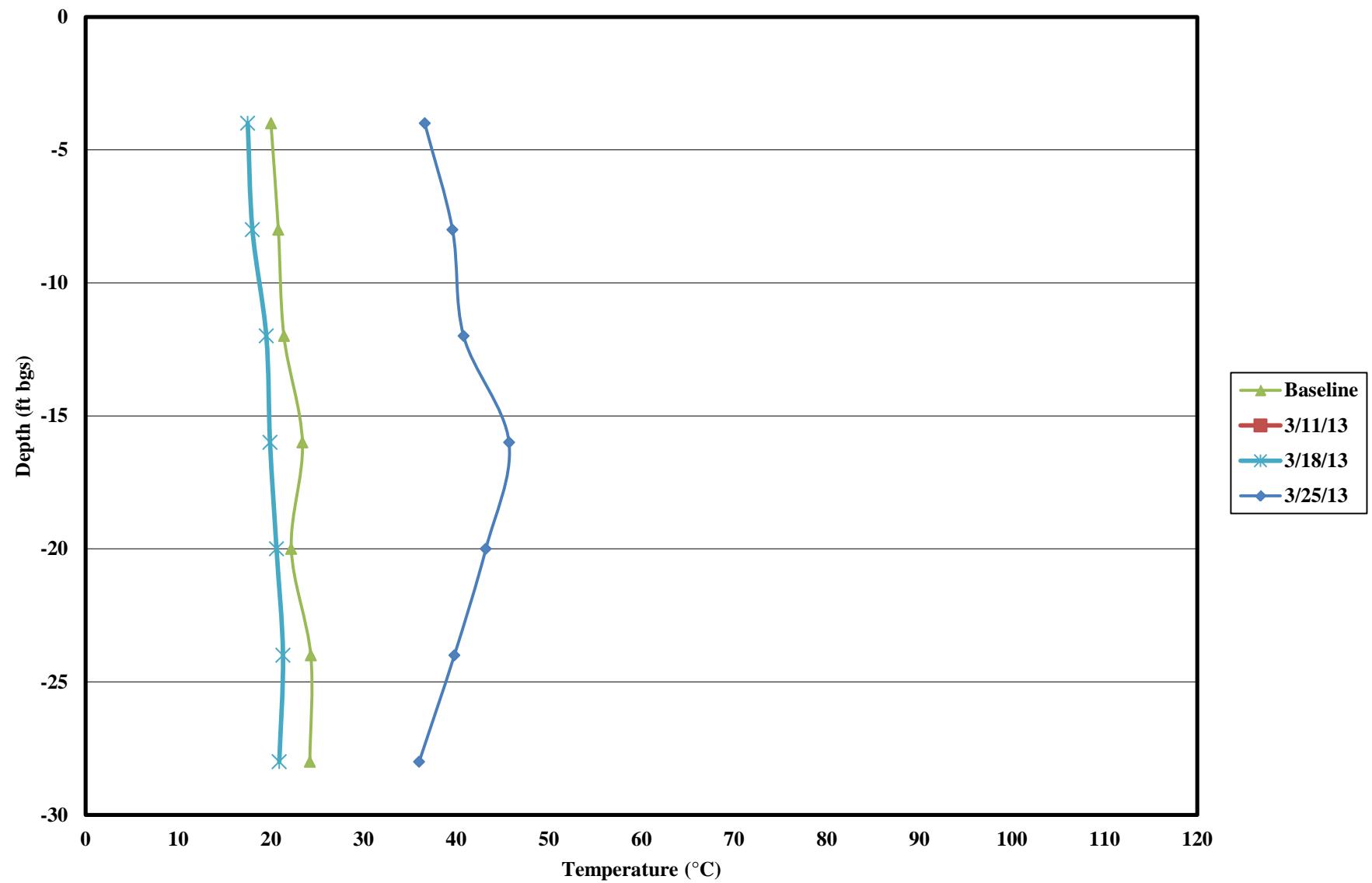


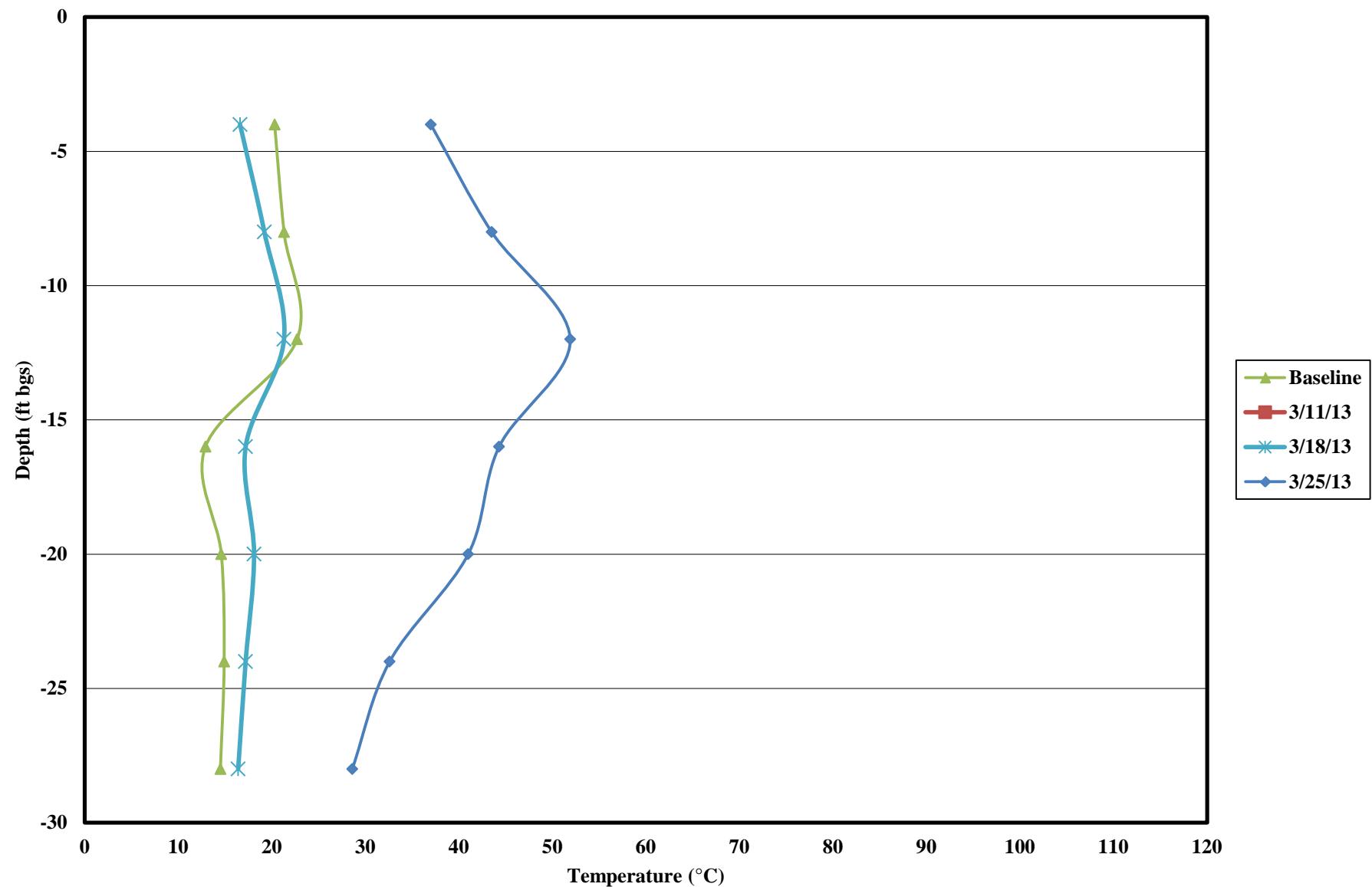
Figure 2e. TMP E4 Temperature vs. Depth



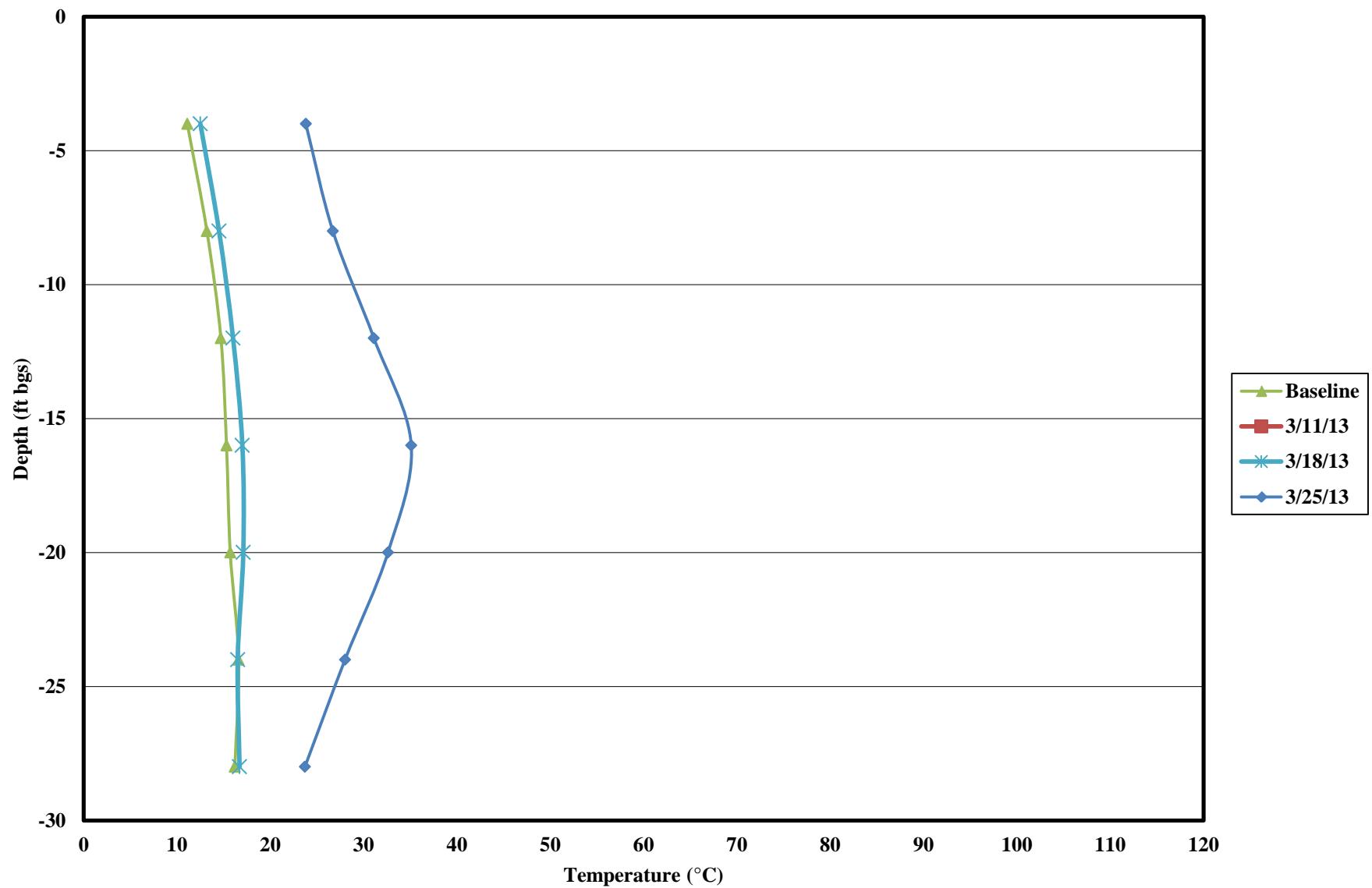
**Figure 2f.** TMP E9 Temperature vs. Depth



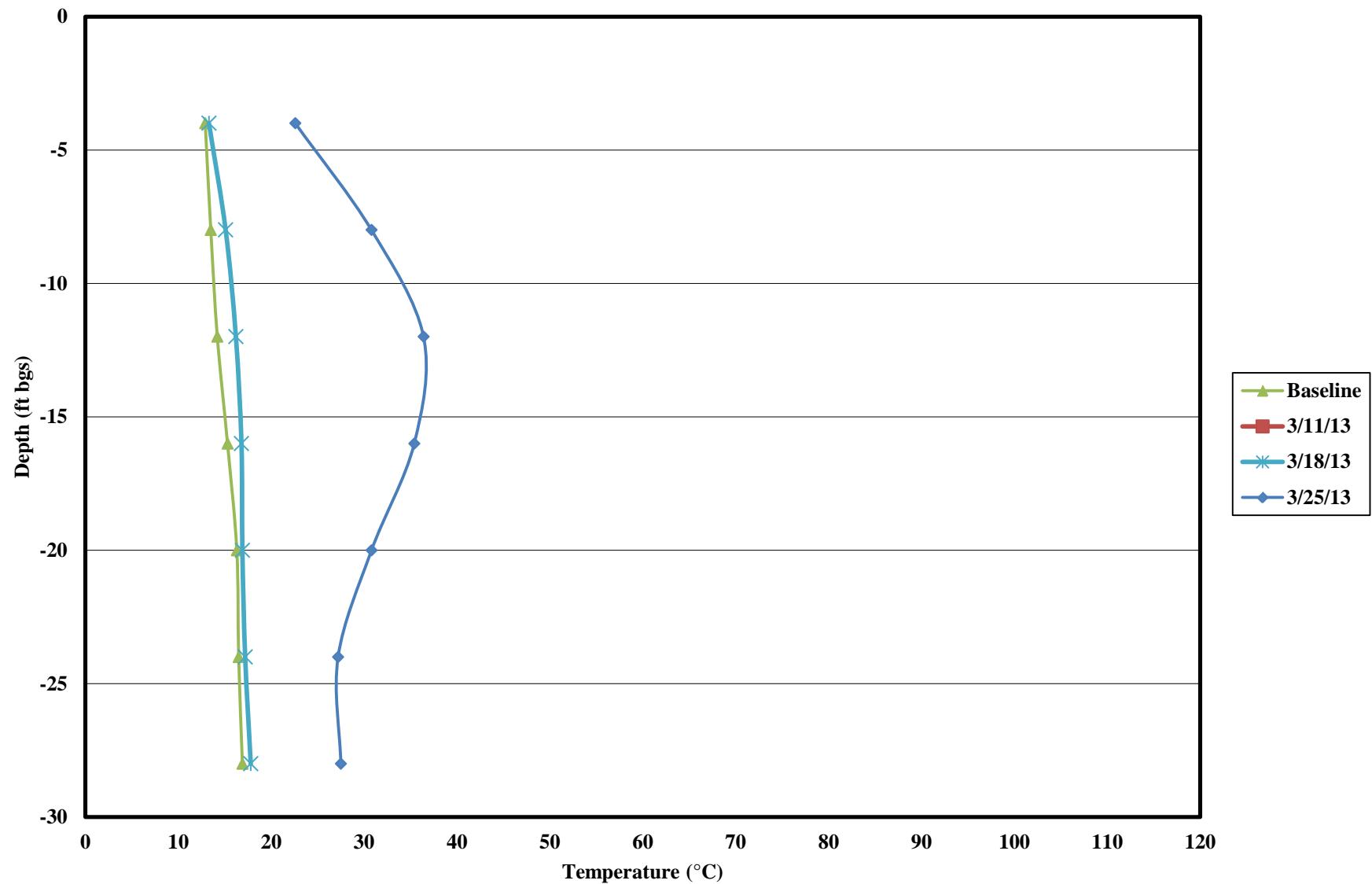
**Figure 2g.** TMP F6 Temperature vs. Depth



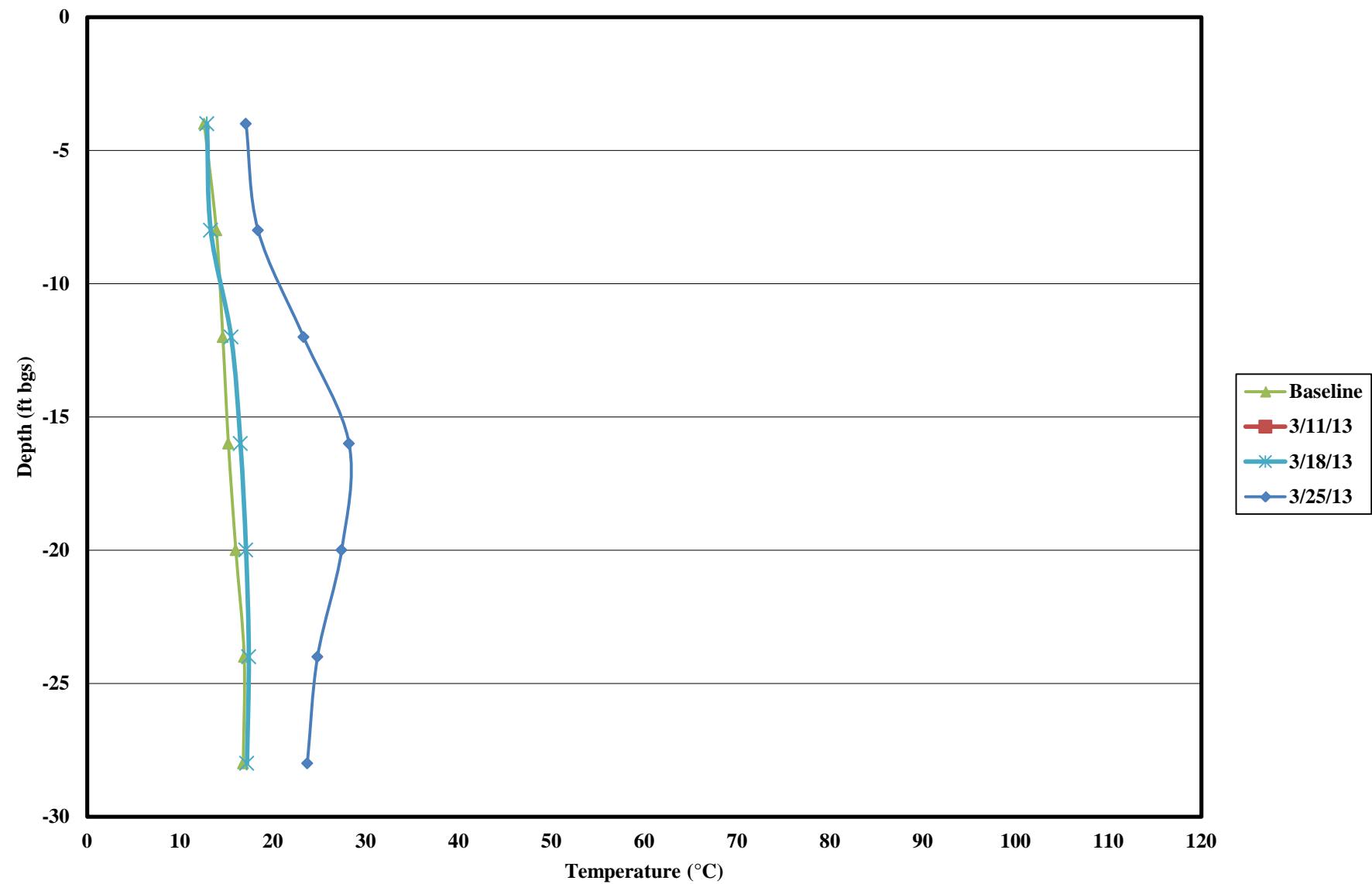
**Figure 2h.** TMP F7 Temperature vs. Depth



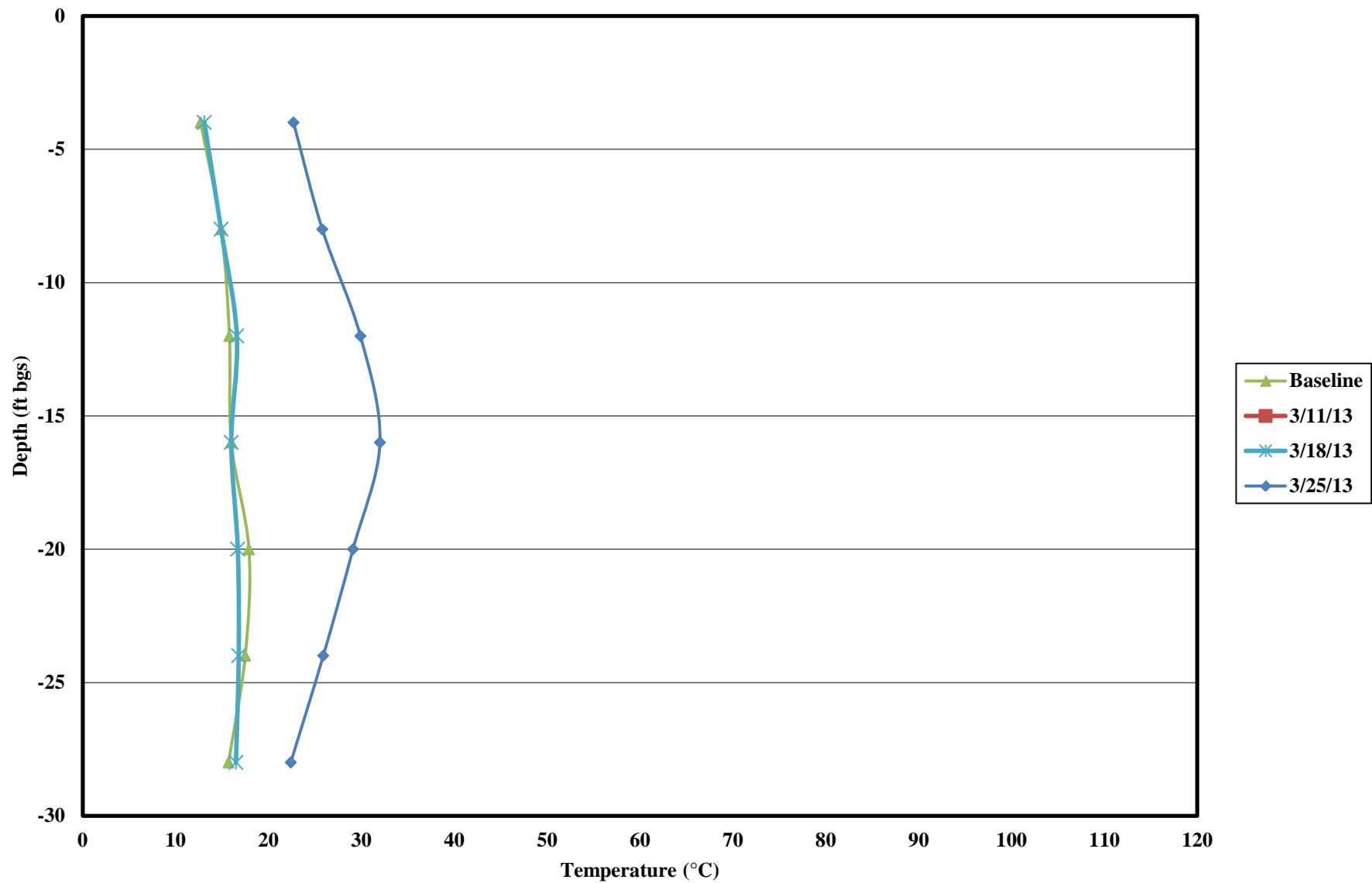
**Figure 2i.** TMP H7 Temperature vs. Depth



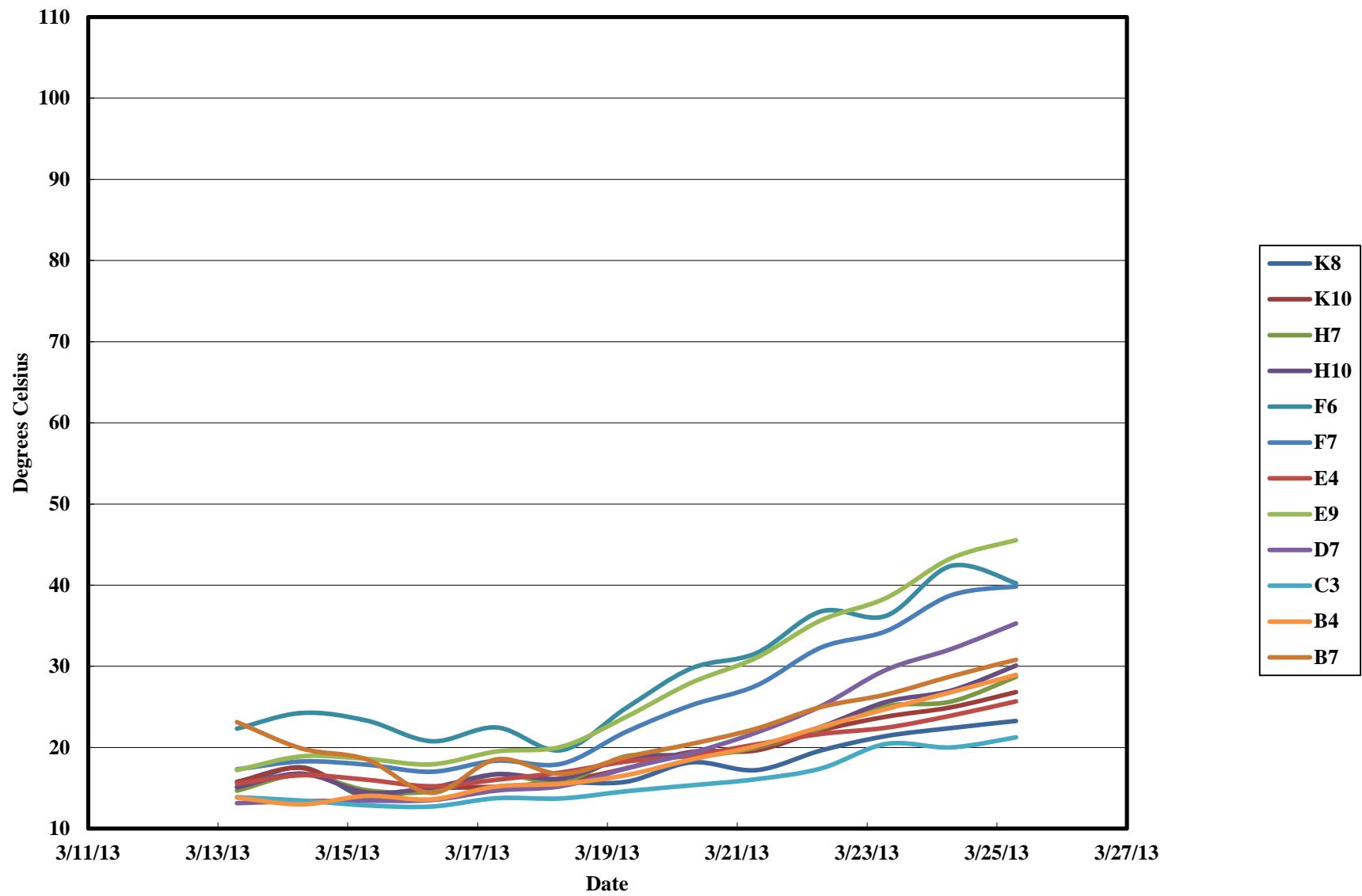
**Figure 2j.** TMP H10 Temperature vs. Depth



**Figure 2k.** TMP K8 Temperature vs. Depth



**Figure 2l.** TMP K10 Temperature vs. Depth



**Figure 3.** Average Subsurface Temperatures

ATTACHMENT 2

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**TRS Electrical Resistance Heating Weekly  
Status Report for March 25 to April 1, 2013**



**TRS Group, Inc.**  
PO Box 737  
Longview, WA 98632  
[www.thermalrs.com](http://www.thermalrs.com)

April 4, 2013

Ms. Mindy DeYoung  
Riddell Williams P.S.  
1001 Fourth Avenue, Suite 4500  
Seattle, WA 98154-1192

**Subject: Electrical Resistance Heating Weekly Status Report**  
**March 25, 2013 to April 1, 2013**  
**Heavens Supply Site**  
**7009 Greenwood Avenue, Seattle, Washington 98103**

Dear Ms. DeYoung,

This status report presents a summary of the Electrical Resistance Heating (ERH) related activities at 7009 Greenwood Avenue, Seattle, Washington (Site). The time period addressed in this report is from March 25, 2013 through April 1, 2013. A summary of field activities, ERH system status, and upcoming work are presented in the following sections.

### **ERH Application Summary**

The key ERH system operational parameters for the reporting period are presented in **Table 1**, which includes data from the previous reporting period for comparison.

**Table 1. ERH System Operating Parameters**

<b>ERH System Parameters</b>	<b>April 1, 2013</b>	<b>March 25, 2013</b>
Weekly Average Power (kW)	1,088	982
Cumulative Energy Applied (kWh)	387,178	204,411
Average Subsurface Temperature (°C)	49.5	31.4
Average Vapor System Flow Rate (scfm)	485	485

TRS personnel were onsite throughout the reporting period. Tasks accomplished during the reporting period included:

- Collection of system operation data daily and optimization of system performance.
- Maintained consistent power to the treatment volume.
- Completed routine equipment maintenance activities.
- Completion of voltage surveys and confirmation all exposed voltage potentials are below TRS administrative levels.

The PCU, vapor recovery and vapor abatement systems have operated within design parameters and in compliance with the Puget Sound Clean Air Agency (PSCAA) air permit conditions during the reporting period.

## **Temperatures**

Treatment region temperatures are monitored at twelve temperature monitoring points (TMPs), which contain thermocouples arrayed vertically. The average subsurface temperature for the site prior to the start of power application was 16.4 degrees Celsius (°C). The average subsurface temperature at the end of this reporting period was 49.5°C, an increase of 33.1 °C since the start of operations and an increase of 18.1 °C within this reporting period. The highest observed subsurface temperature for this reporting period was 77.3°C, at a depth of 8 feet below grade surface (ft bgs) at TMP B7 on April 1, 2013.

For the purpose of adequately illustrating the temperature change, the data was broken into twelve separate graphs based on the TMP location. Temperatures relative to depth for each TMP are presented in **Figures 2a** through **2l**. Average subsurface temperature over time is presented in **Figure 3**.

## **Power and Energy**

The PCU averaged 1,088 kilowatts (kW) of applied power to the treatment volume during the reporting period. A total of 387,178 kilowatt-hours (kWh) of energy have been applied to the subsurface as of April 1, 2013. This is approximately 13% of the design energy input.

## **ERH Vapor Recovery and Mass Removal**

The vapor stream flow rate as measured after the vapor recovery blower averaged 485 standard cubic feet per minute (scfm) throughout the operating period.

Vapor samples are collected with the other operational data and analyzed onsite using a photo ionization detector (PID) as well as by laboratory analysis. This data and information is used to measure system performance (i.e. pounds of contaminant removed), air permit compliance, and will also be factored into future system operations and adjustments. **Table 2** presents the cumulative recovery rate and estimated removed volatile organic compound (VOC) mass based on influent analytical data collected through March 19, 2013. **Figure 4** presents a graph of the cumulative VOC mass removed over time. As of March 27, 2013 the estimated total mass recovered is 87 pounds of VOCs.

## **Planned Activities**

TRS personnel will visit the site the week of April 1, 2013 to collect operations data, optimize the system, and perform weekly maintenance.

Should you have any questions concerning this report, or if you would like any additional information, please contact either me or Lynette Stauch by phone at (720) 940-4885 and (505) 281-9553, respectively.

Sincerely,  
TRS Group, Inc.

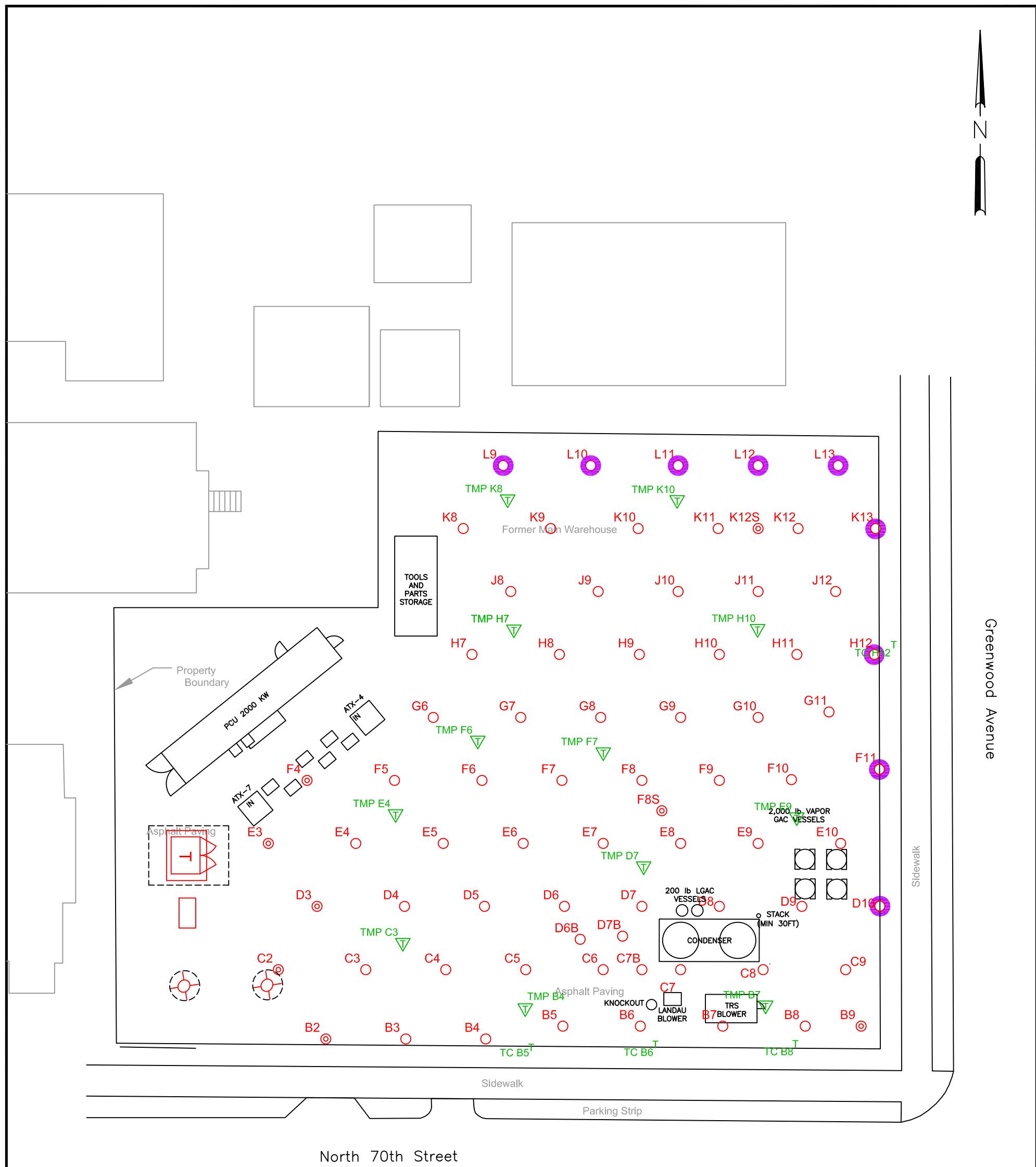


Jeff Brink  
Project Manager

Attachments: Figure 1 – Site Plan  
Table 2 – Mass Removed  
Figure 2a – TMP B4 Temperature vs. Depth  
Figure 2b – TMP B7 Temperature vs. Depth  
Figure 2c – TMP C3 Temperature vs. Depth  
Figure 2d – TMP D7 Temperature vs. Depth  
Figure 2e – TMP E4 Temperature vs. Depth  
Figure 2f – TMP E9 Temperature vs. Depth  
Figure 2g – TMP F6 Temperature vs. Depth  
Figure 2h – TMP F7 Temperature vs. Depth  
Figure 2i – TMP H7 Temperature vs. Depth  
Figure 2j – TMP H10 Temperature vs. Depth  
Figure 2k – TMP K8 Temperature vs. Depth  
Figure 2l – TMP K10 Temperature vs. Depth  
Figure 3 – Average Subsurface Temperature vs. Time  
Figure 4 – Cumulative Mass Removed

cc: Lynette Stauch, TRS  
Piper Roelen, Landau  
Tim Warner, TRS

**ATTACHMENTS**



## LEGEND

- DEEP ELECTRODE (56)
- DUAL DEEP ELECTRODE (9)
- ◎ SHALLOW ELECTRODE (8)
- ▽ TEMPERATURE MONITORING POINT (12)
- THERMOCOUPLE (4)

0' 20' 40'



**TRS**  
Accelerating Value

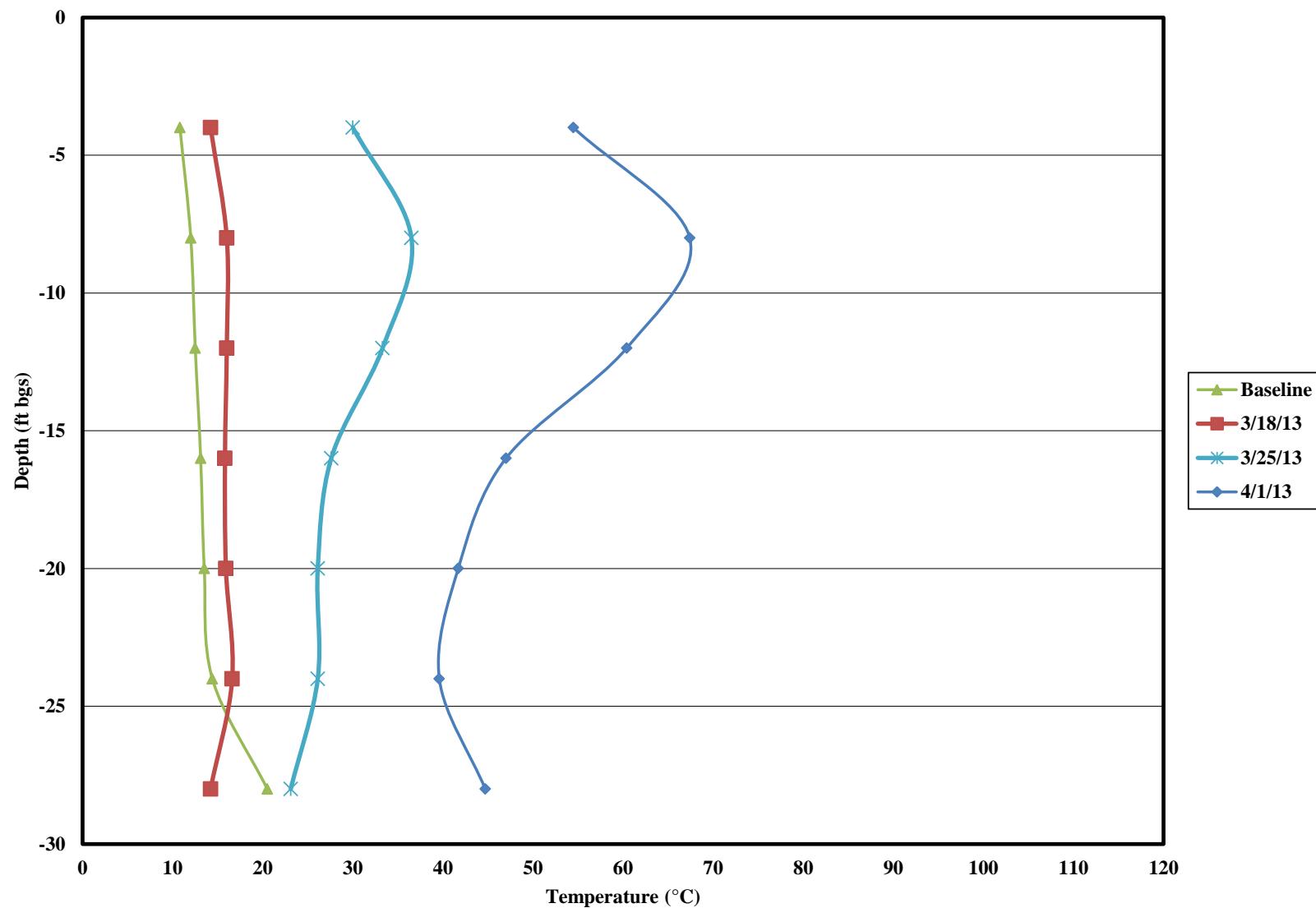
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DESIGNED BY C. CROWNOVER	FOR	HEAVEN SUPPLY SEATTLE, WASHINGTON
DRAWN BY C. CROWNOVER	ERH SYSTEM DESIGN	
CHECKED BY TRS		
PROJECT MANAGER J. BRINK	APPROVED FOR IMPLEMENTATION	DATE 12/06/11 PROJECT SEA19
BY _____	FOR _____ DATE	SHEET

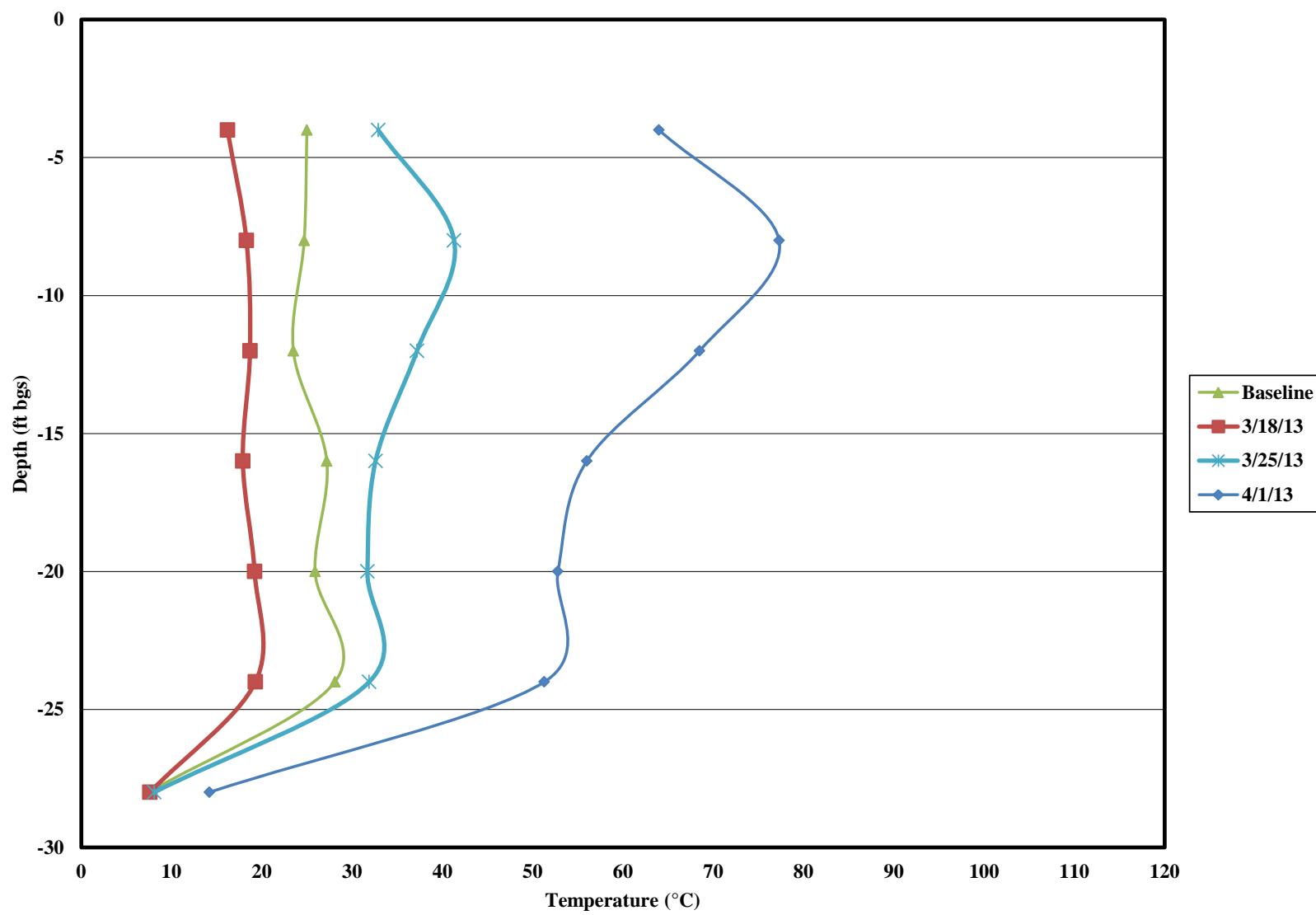
**FIGURE 1**

**Table 1.** ERH System VOC Mass Removal

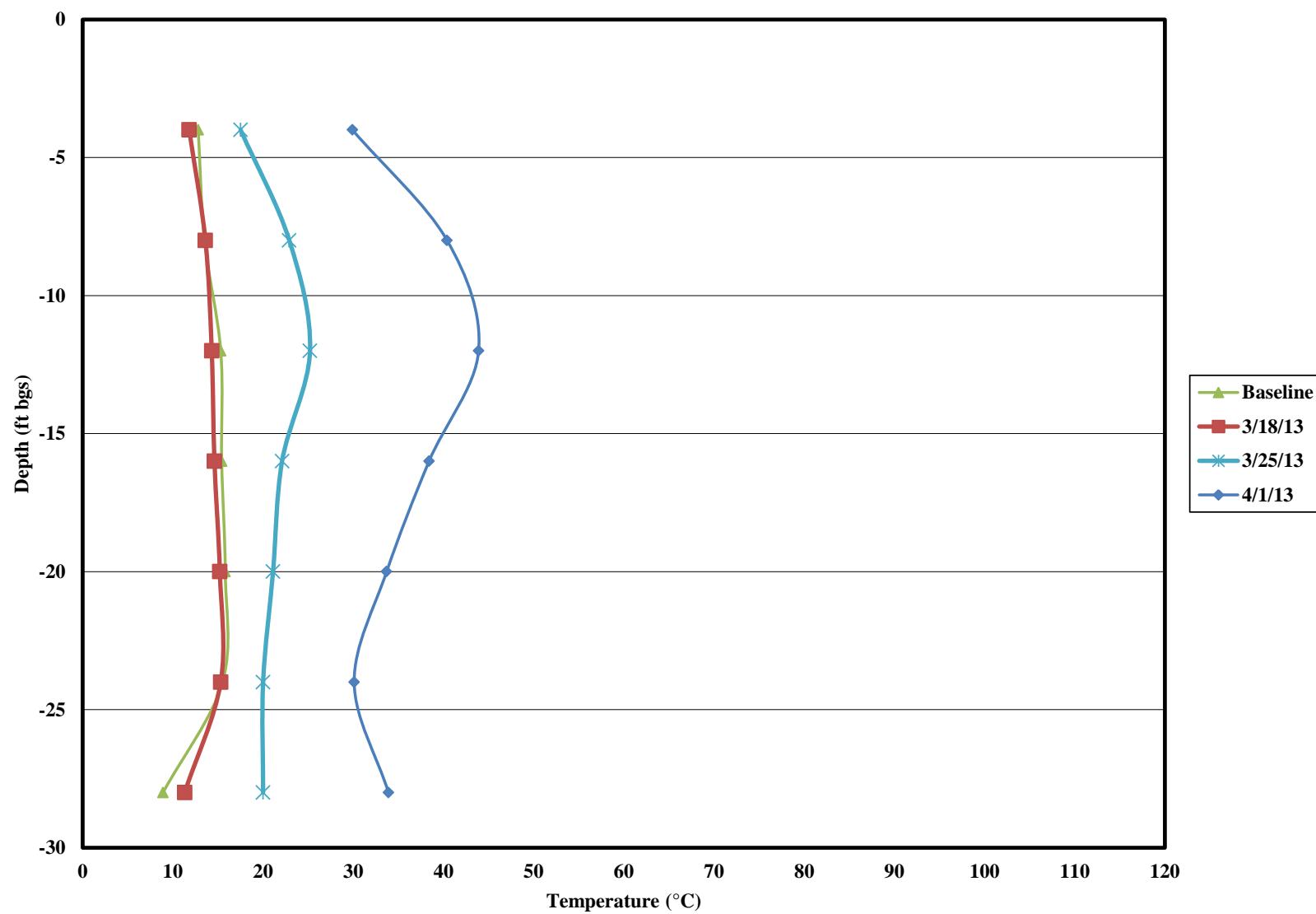
Date	Recovery Rate (lb/day)	Mass Removed (lb)	Total Mass Removed (lb)
3-5-13	3.6	9	9
3-14-13	1.3	21	30
3-19-13	5.2	18	48
3-27-13	4.8	38	87



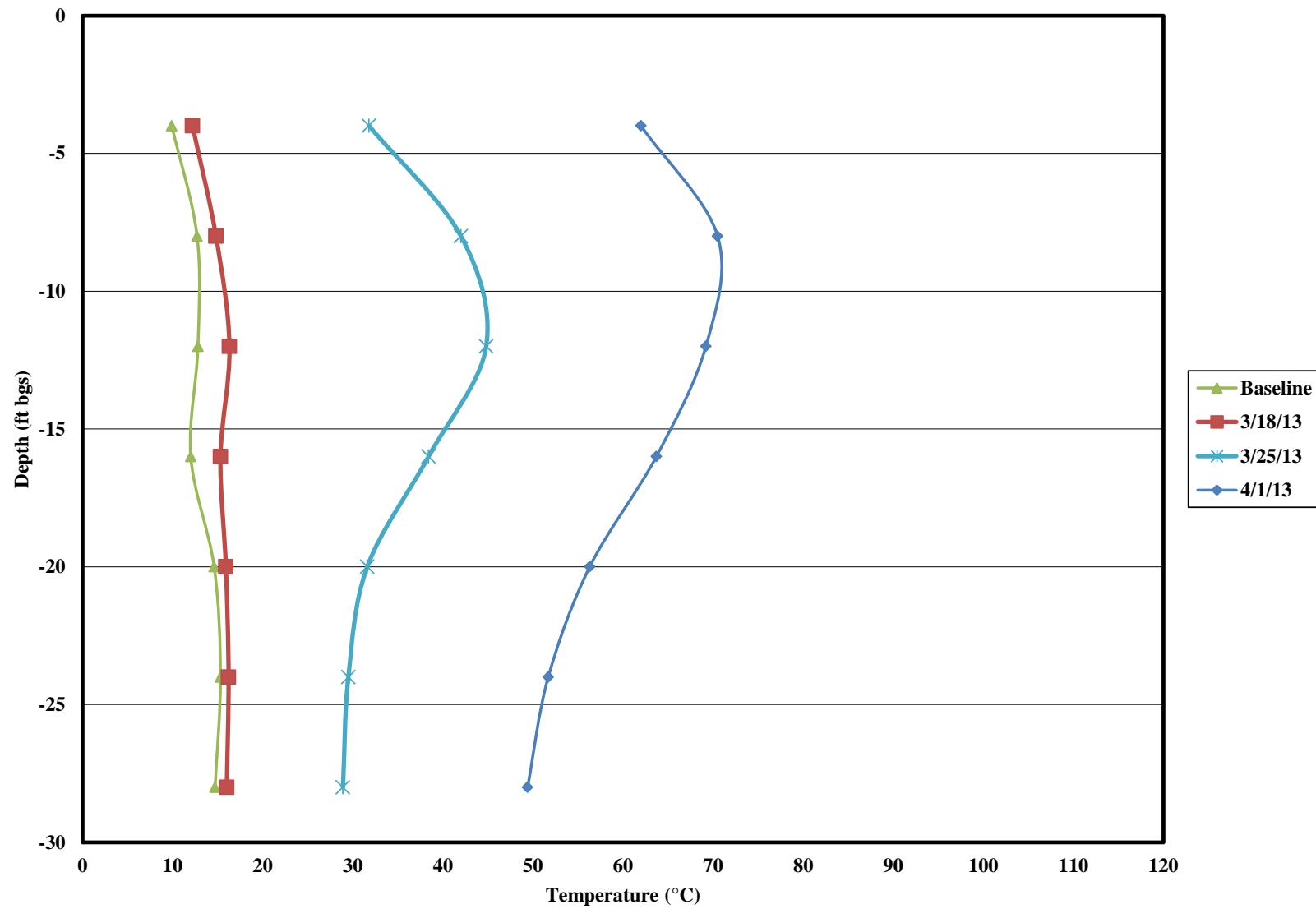
**Figure 2a.** TMP B4 Temperature vs. Depth



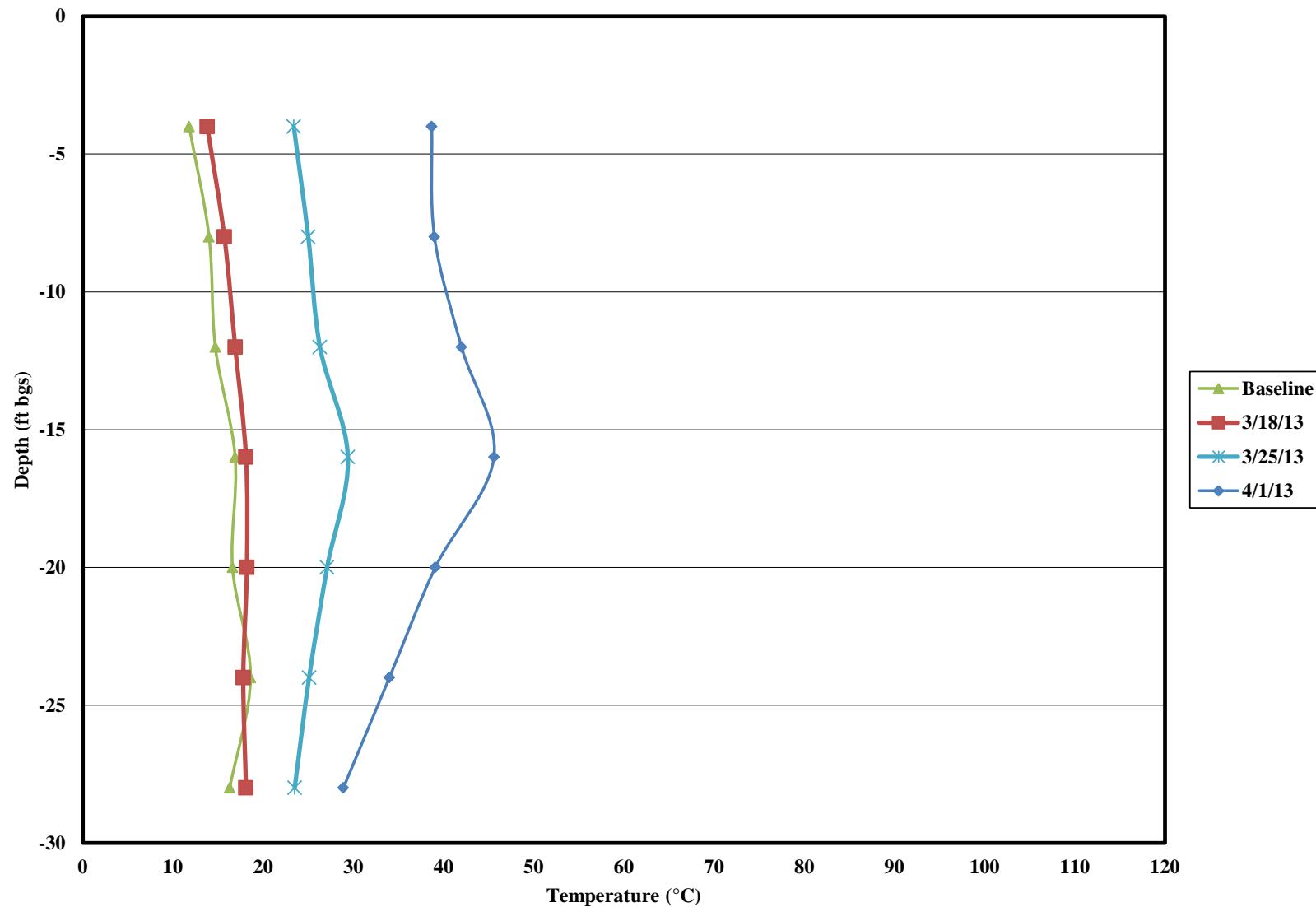
**Figure 2b.** TMP B7 Temperature vs. Depth



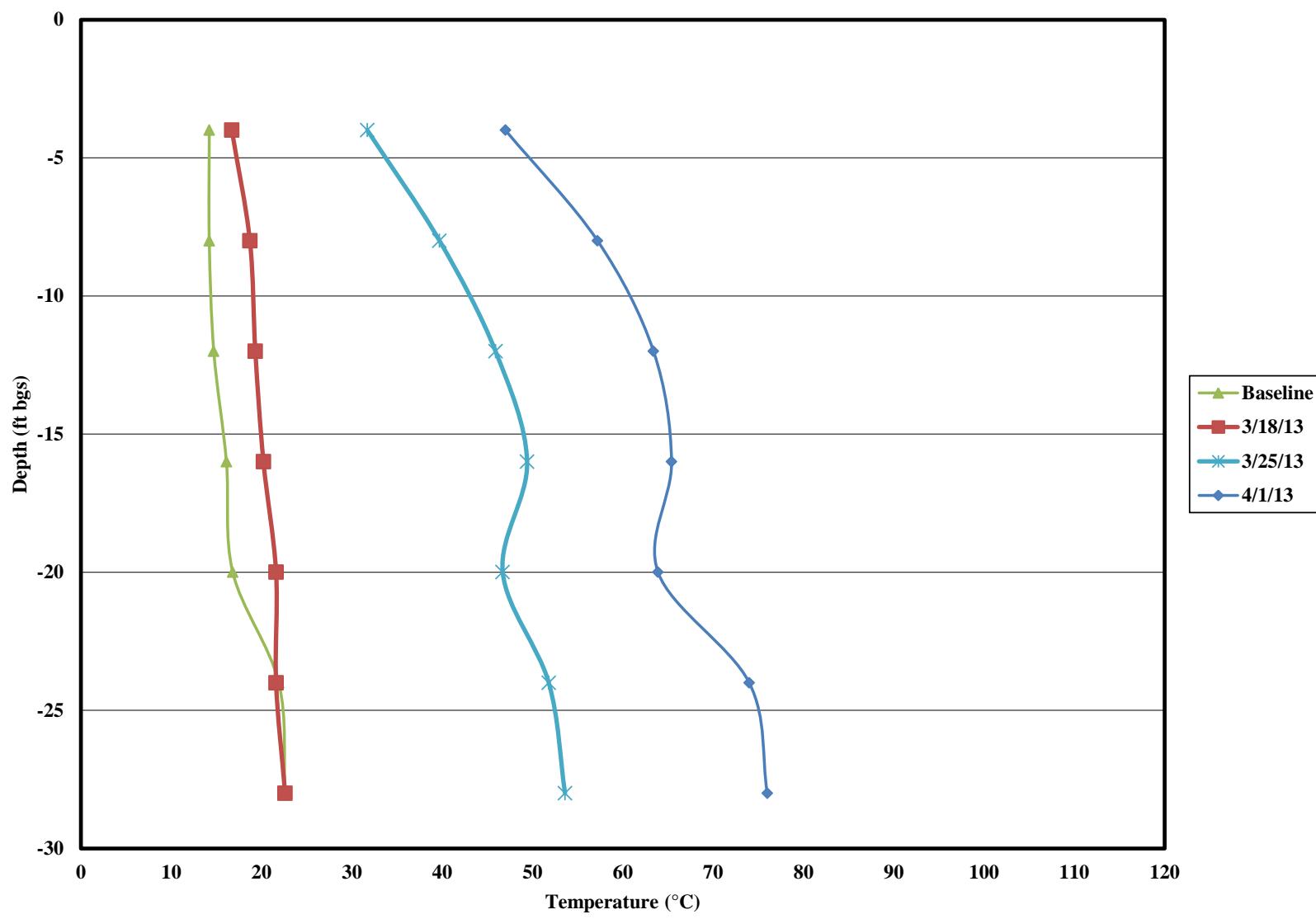
**Figure 2c.** TMP C3 Temperature vs. Depth



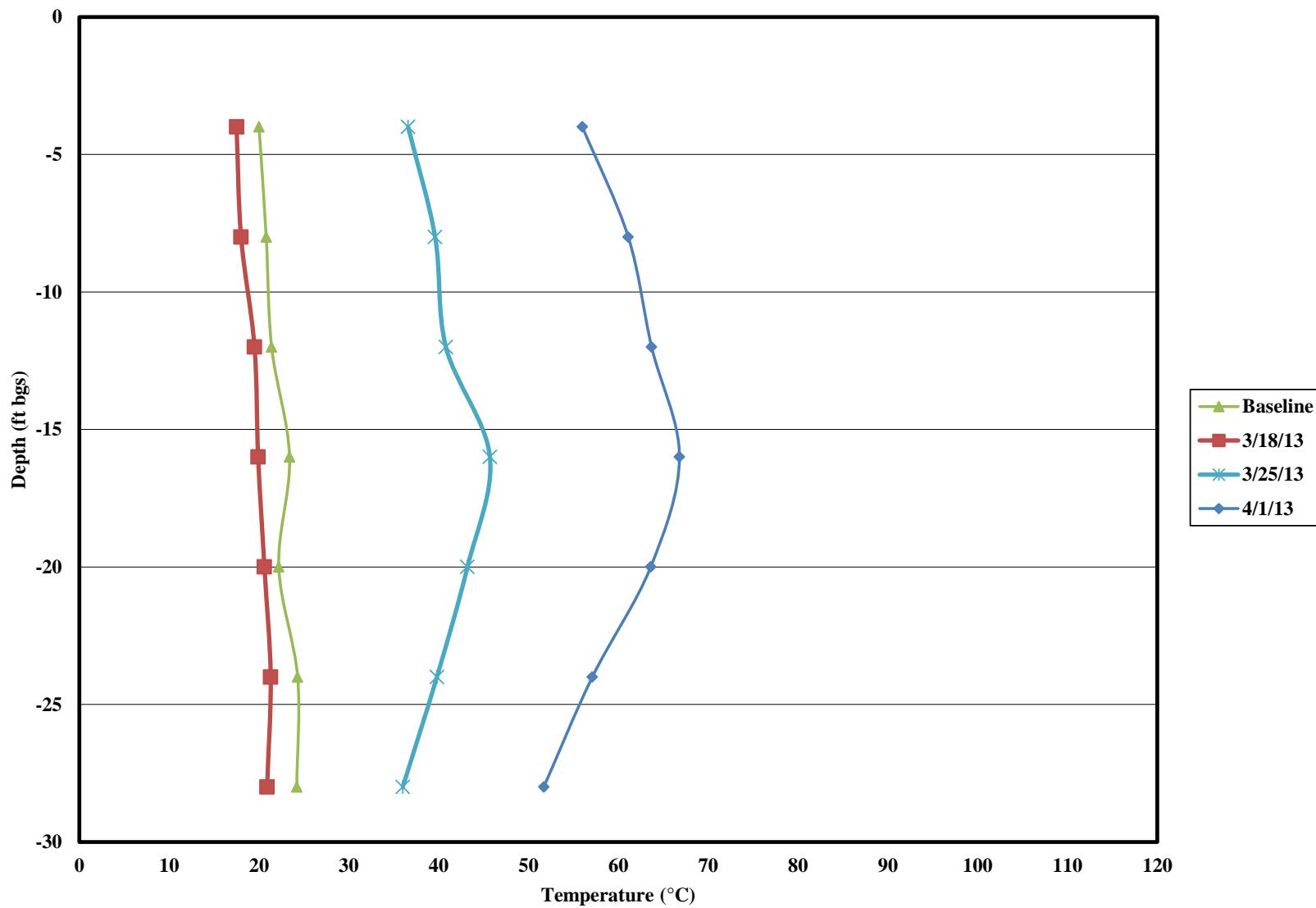
**Figure 2d.** TMP D7 Temperature vs. Depth



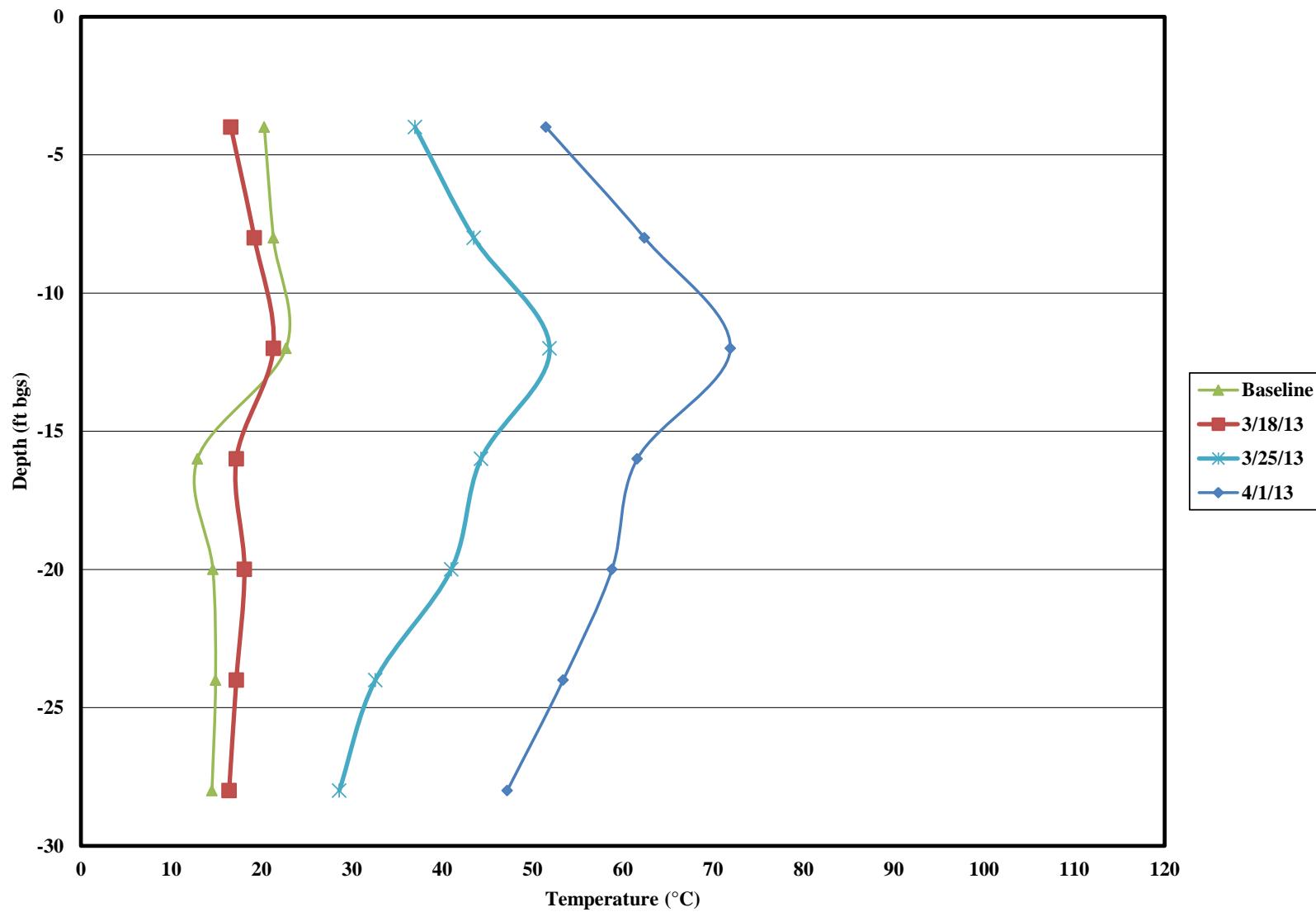
**Figure 2e.** TMP E4 Temperature vs. Depth



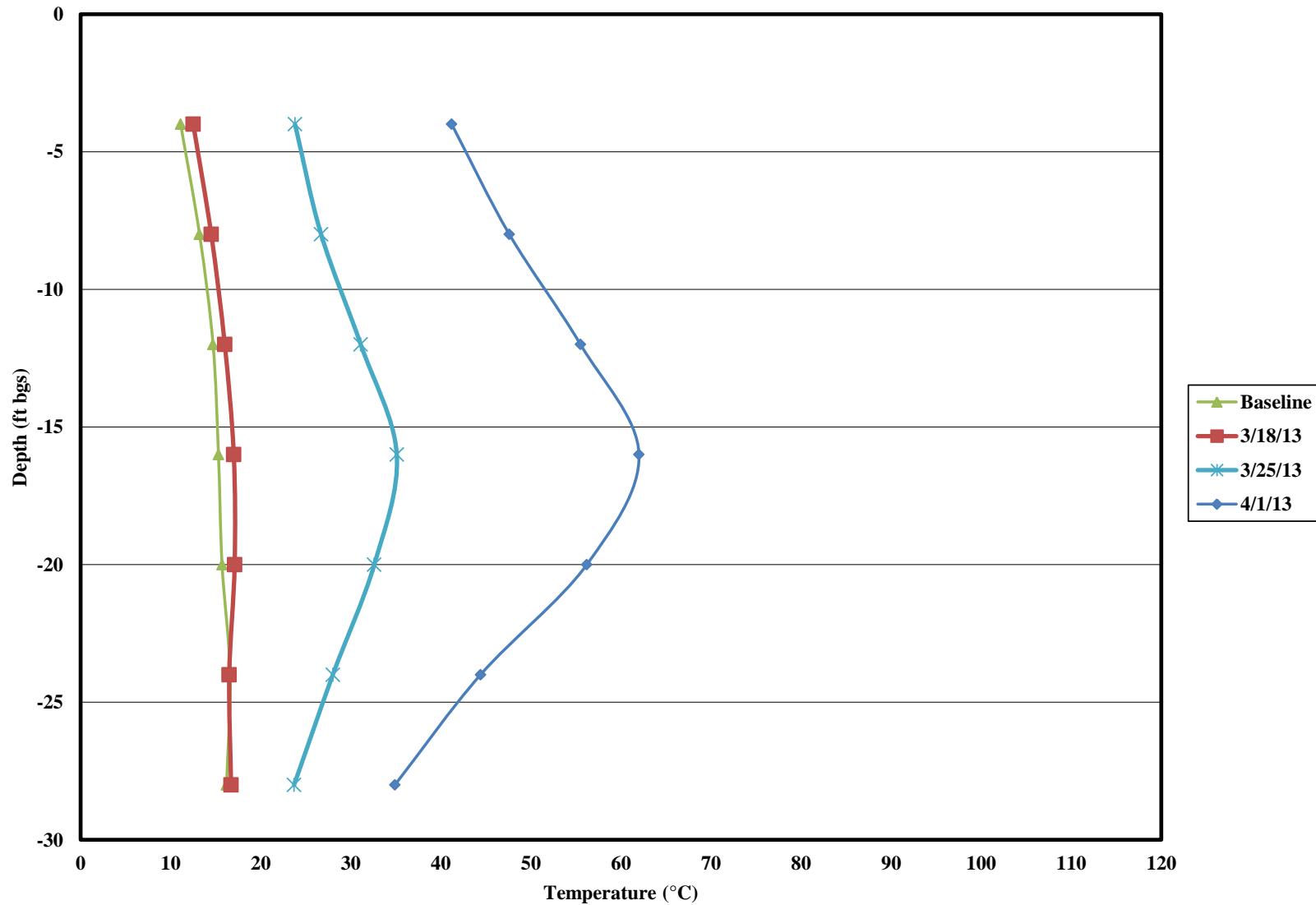
**Figure 2f.** TMP E9 Temperature vs. Depth



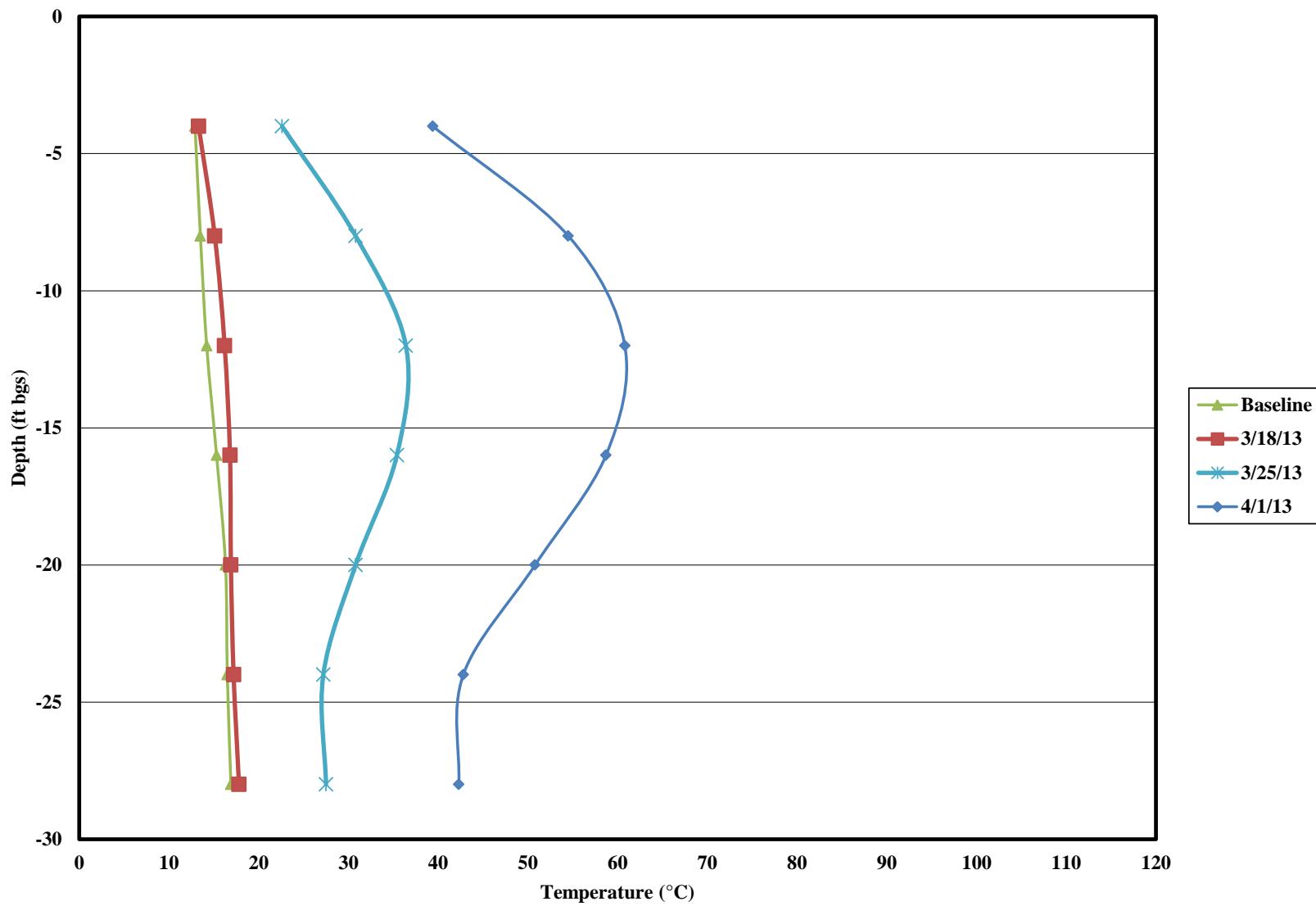
**Figure 2g.** TMP F6 Temperature vs. Depth



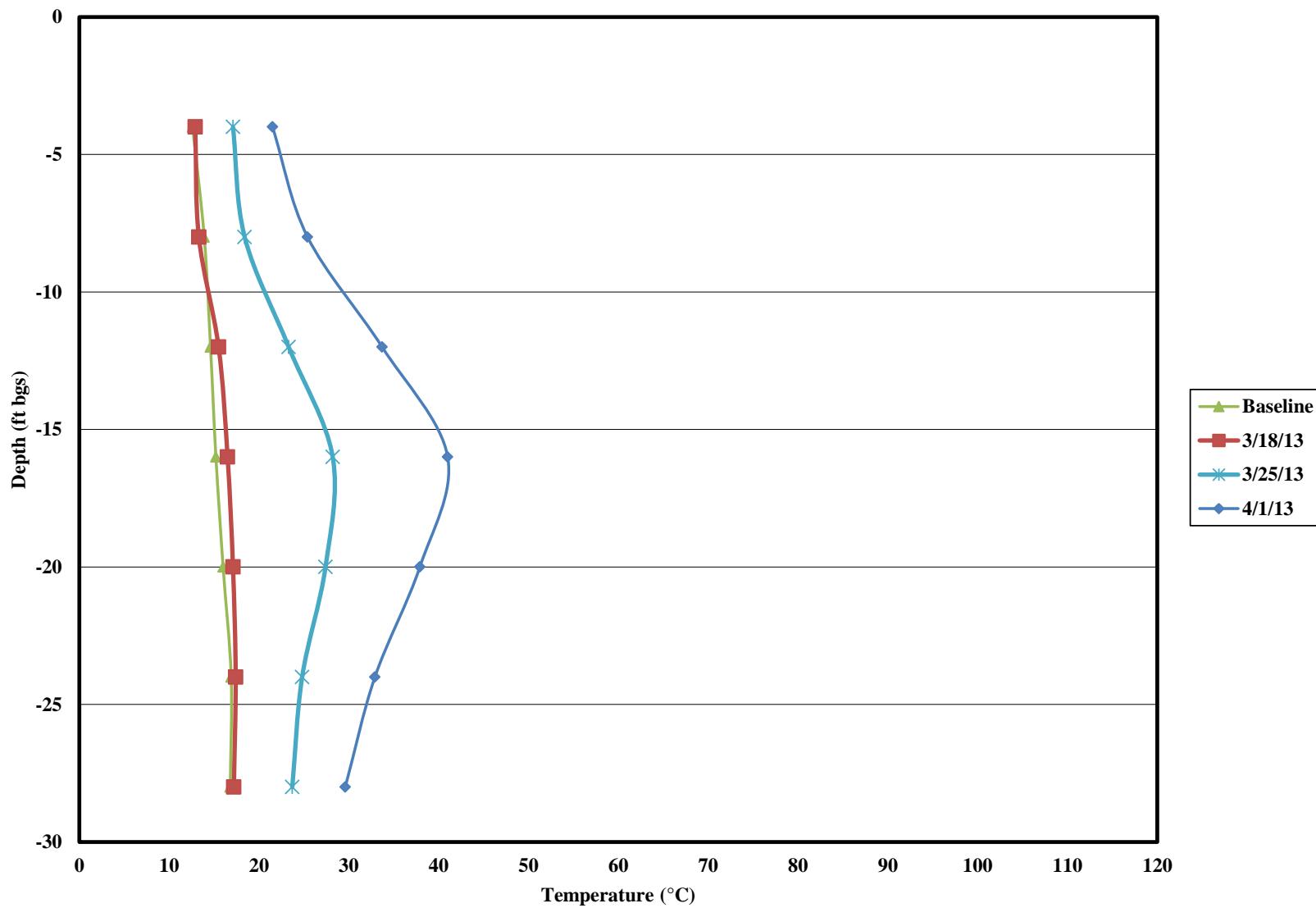
**Figure 2h.** TMP F7 Temperature vs. Depth



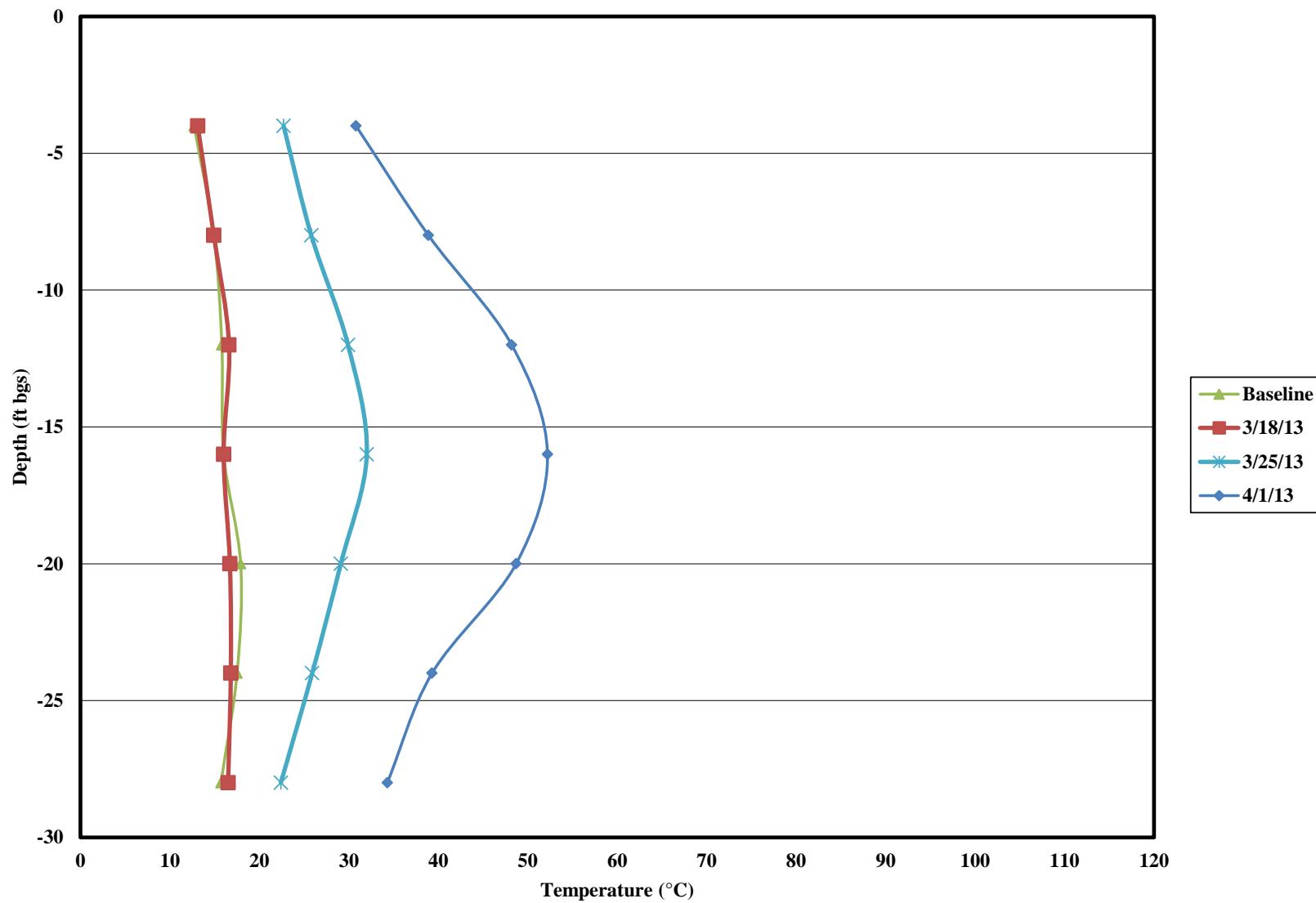
**Figure 2i.** TMP H7 Temperature vs. Depth



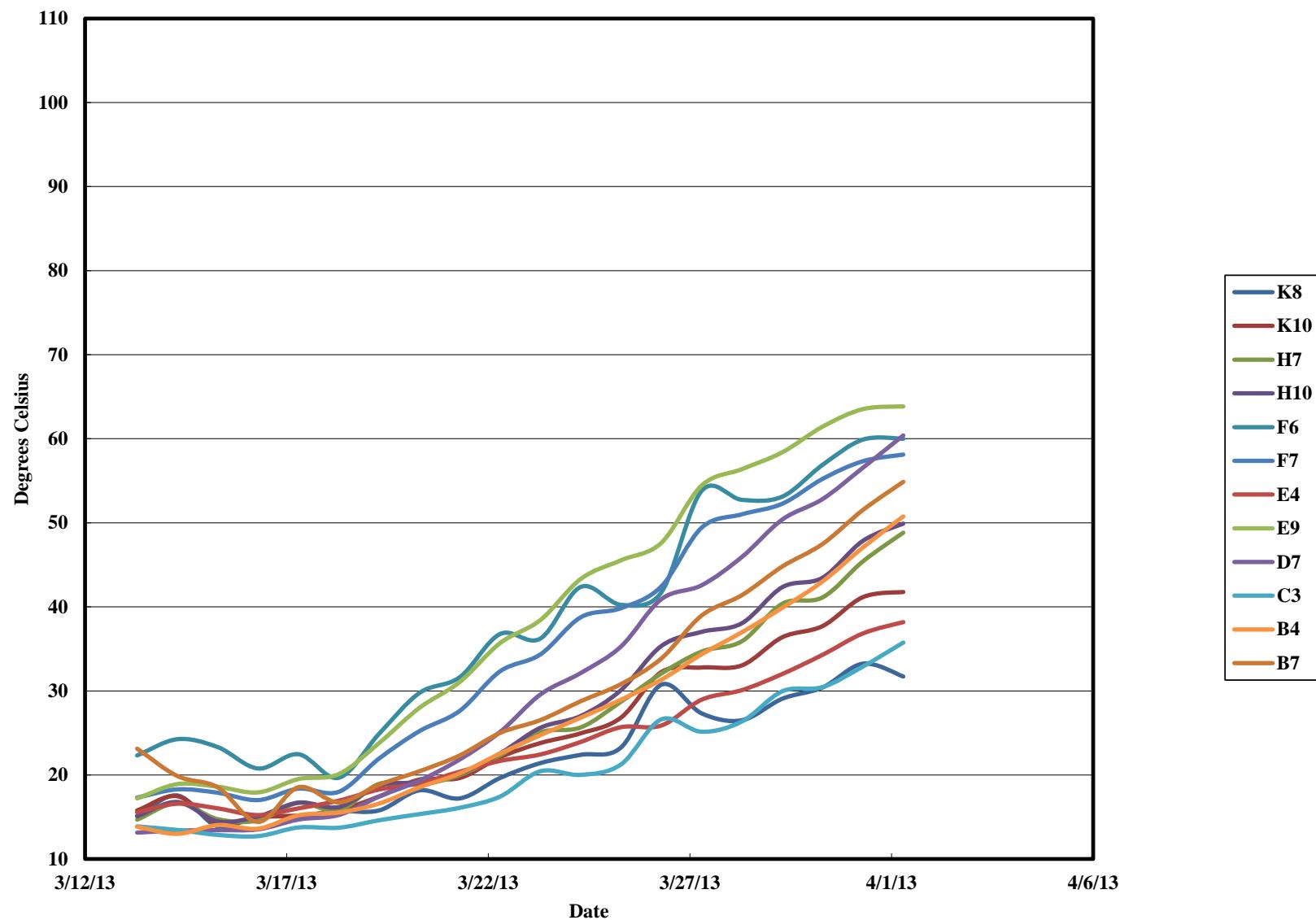
**Figure 2j.** TMP H10 Temperature vs. Depth



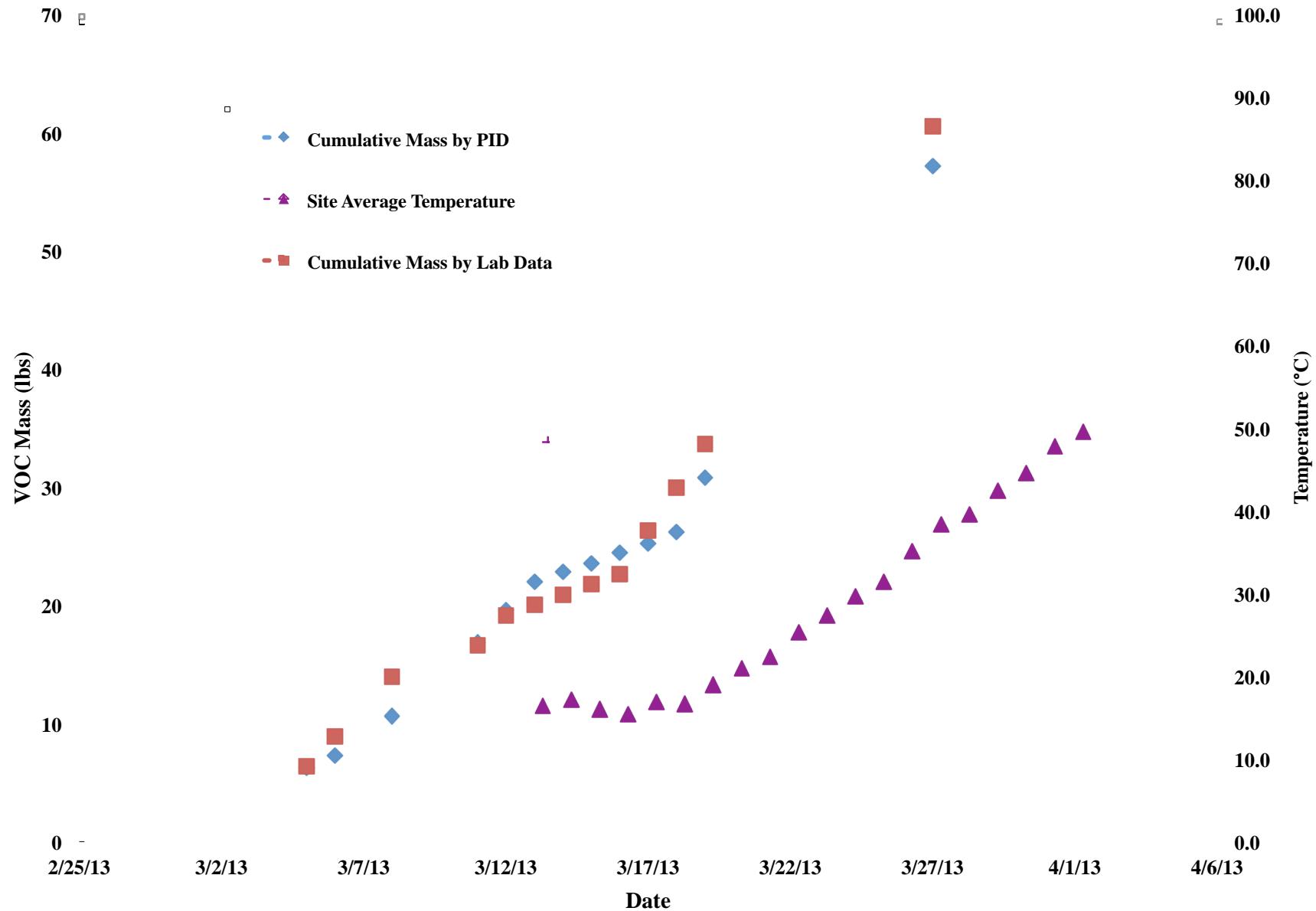
**Figure 2k.** TMP K8 Temperature vs. Depth



**Figure 2l.** TMP K10 Temperature vs. Depth



**Figure 3.** Average Subsurface Temperatures



**Figure 4.** Cumulative Mass Removed

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**ATTACHMENT 3**

## **Laboratory Analytical Reports – Indoor Air**

3/20/2013  
Mr. Piper Roelen  
Landau Associates, Inc.  
130 2nd Avenue South

Edmonds WA 98020

Project Name: Heavens Supply  
Project #: 583002.050.057  
Workorder #: 1303200

Dear Mr. Piper Roelen

The following report includes the data for the above referenced project for sample(s) received on 3/11/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 SIM are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner  
Project Manager

**A Eurofins Lancaster Laboratories Company**

**WORK ORDER #:** 1303200

## Work Order Summary

**CLIENT:** Mr. Piper Roelen  
 Landau Associates, Inc.  
 130 2nd Avenue South  
 Edmonds, WA 98020

**BILL TO:** Mr. Piper Roelen  
 Landau Associates, Inc.  
 130 2nd Avenue South  
 Edmonds, WA 98020

**PHONE:** 800-552-5957  
**FAX:** 425-778-6409  
**DATE RECEIVED:** 03/11/2013  
**DATE COMPLETED:** 03/20/2013

**P.O. #**  
**PROJECT #** 583002.050.057 Heavens Supply  
**CONTACT:** Kelly Buettner

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	7014 Palatine-basement:030513	Modified TO-15 SIM	6.0 "Hg	5 psi
02A	7010 Palatine-basement:030513	Modified TO-15 SIM	2.0 "Hg	5 psi
03A	church-Basement:030513	Modified TO-15 SIM	5.0 "Hg	5 psi
04A	Heaven Supply-NE corner:030513	Modified TO-15 SIM	2.5 "Hg	5 psi
05A	7013 Greenwood-Basement:030513	Modified TO-15 SIM	4.0 "Hg	5 psi
06A	7013 Greenwood-Tower:030513	Modified TO-15 SIM	5.5 "Hg	5 psi
07A	202 Palatine-Basement:030513	Modified TO-15 SIM	5.0 "Hg	5 psi
08A	Lab Blank	Modified TO-15 SIM	NA	NA
09A	CCV	Modified TO-15 SIM	NA	NA
10A	LCS	Modified TO-15 SIM	NA	NA
10AA	LCSD	Modified TO-15 SIM	NA	NA

CERTIFIED BY:

*Heidi Hayes*

DATE: 03/20/13

Technical Director

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,  
 TX NELAP - T104704434-12-4, UT NELAP CA009332012-3, WA NELAP - C935

Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2012, Expiration date: 10/17/2013.

Eurofins Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



**LABORATORY NARRATIVE  
EPA Method TO-15  
Landau Associates, Inc.  
Workorder# 1303200**

Seven 6 Liter Summa Canister (SIM Certified) samples were received on March 11, 2013. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

### **Receiving Notes**

The Chain of Custody (COC) information for sample Heaven Supply-NE corner:030513 did not match the entry on the sample tag with regard to sample identification. The information on the COC was used to process and report the sample.

### **Analytical Notes**

There were no analytical discrepancies.

### **Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

**Client Sample ID: 7014 Palatine-basement:030513**

**Lab ID#: 1303200-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0050	0.0080	0.027	0.043

**Client Sample ID: 7010 Palatine-basement:030513**

**Lab ID#: 1303200-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0043	0.0064	0.023	0.034
Tetrachloroethene	0.029	0.11	0.20	0.74

**Client Sample ID: church-Basement:030513**

**Lab ID#: 1303200-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0048	0.0052	0.026	0.028

**Client Sample ID: Heaven Supply-NE corner:030513**

**Lab ID#: 1303200-04A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0044	0.015	0.024	0.079
Tetrachloroethene	0.029	0.034	0.20	0.23

**Client Sample ID: 7013 Greenwood-Basement:030513**

**Lab ID#: 1303200-05A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0046	0.0046	0.025	0.025

**Client Sample ID: 7013 Greenwood-Tower:030513**

**Lab ID#: 1303200-06A**

No Detections Were Found.

**Summary of Detected Compounds  
MODIFIED EPA METHOD TO-15 GC/MS SIM**

**Client Sample ID: 202 Palatine-Basement:030513**

**Lab ID#: 1303200-07A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Trichloroethene	0.0048	0.0057	0.026	0.030



Air Toxics

Client Sample ID: 7014 Palatine-basement:030513

Lab ID#: 1303200-01A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	e031908sim	Date of Collection:	3/6/13 8:43:00 AM	
Dil. Factor:	1.68	Date of Analysis:	3/19/13 03:45 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Trichloroethene	0.0050	0.0080	0.027	0.043
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected

**Container Type: 6 Liter Summa Canister (SIM Certified)**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	105	70-130



Air Toxics

Client Sample ID: 7010 Palatine-basement:030513

Lab ID#: 1303200-02A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	e031909sim	Date of Collection:	3/6/13 9:01:00 AM	
Dil. Factor:	1.44	Date of Analysis:	3/19/13 04:36 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.014	Not Detected	0.037	Not Detected
Trichloroethene	0.0043	0.0064	0.023	0.034
Tetrachloroethene	0.029	0.11	0.20	0.74
cis-1,2-Dichloroethene	0.029	Not Detected	0.11	Not Detected

**Container Type: 6 Liter Summa Canister (SIM Certified)**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: church-Basement:030513

Lab ID#: 1303200-03A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	e031910sim	Date of Collection:	3/6/13 9:20:00 AM	
Dil. Factor:	1.61	Date of Analysis:	3/19/13 05:21 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Trichloroethene	0.0048	0.0052	0.026	0.028
Tetrachloroethene	0.032	Not Detected	0.22	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected

**Container Type: 6 Liter Summa Canister (SIM Certified)**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: Heaven Supply-NE corner:030513

Lab ID#: 1303200-04A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	e031911sim	Date of Collection:	3/6/13 10:43:00 AM	
Dil. Factor:	1.46	Date of Analysis:	3/19/13 06:11 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.015	Not Detected	0.037	Not Detected
Trichloroethene	0.0044	0.015	0.024	0.079
Tetrachloroethene	0.029	0.034	0.20	0.23
cis-1,2-Dichloroethene	0.029	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: 7013 Greenwood-Basement:030513

Lab ID#: 1303200-05A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	e031912sim	Date of Collection:	3/6/13 5:44:00 PM	
Dil. Factor:	1.55	Date of Analysis:	3/19/13 07:05 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
Trichloroethene	0.0046	0.0046	0.025	0.025
Tetrachloroethene	0.031	Not Detected	0.21	Not Detected
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected

**Container Type: 6 Liter Summa Canister (SIM Certified)**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: 7013 Greenwood-Tower:030513

Lab ID#: 1303200-06A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	e031913sim	Date of Collection:	3/6/13 6:04:00 PM	
Dil. Factor:	1.64	Date of Analysis:	3/19/13 08:26 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
Trichloroethene	0.0049	Not Detected	0.026	Not Detected
Tetrachloroethene	0.033	Not Detected	0.22	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected

**Container Type: 6 Liter Summa Canister (SIM Certified)**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	111	70-130



Air Toxics

Client Sample ID: 202 Palatine-Basement:030513

Lab ID#: 1303200-07A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	e031915sim	Date of Collection:	3/6/13 6:14:00 PM	
Dil. Factor:	1.61	Date of Analysis:	3/19/13 10:27 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Trichloroethene	0.0048	0.0057	0.026	0.030
Tetrachloroethene	0.032	Not Detected	0.22	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected

**Container Type: 6 Liter Summa Canister (SIM Certified)**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1303200-08A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	e031907sim	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 3/19/13 02:33 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1303200-09A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	e031902sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/19/13 10:20 AM

Compound	%Recovery
Vinyl Chloride	93
Trichloroethene	80
Tetrachloroethene	84
cis-1,2-Dichloroethene	102

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	108	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1303200-10A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	e031904sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/19/13 11:55 AM

Compound	%Recovery
Vinyl Chloride	81
Trichloroethene	71
Tetrachloroethene	73
cis-1,2-Dichloroethene	97

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1303200-10AA

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	e031905sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/19/13 12:48 PM

Compound	%Recovery
Vinyl Chloride	84
Trichloroethene	70
Tetrachloroethene	73
cis-1,2-Dichloroethene	97

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	106	70-130



- Seattle/Edmonds (425) 778-0907  
 Tacoma (253) 926-2493  
 Spokane (509) 327-9737  
 Portland (503) 542-1080

1303200

Date 3-6-13

Page 1 of 1

## Chain-of-Custody Record

Project Name <u>Heuvers Supply</u> Project No. <u>SS502.056.057</u> Project Location/Event <u>2009 Greenwood Ave N Seattle, WA</u> Sampler's Name <u>Devan Brandt</u> Project Contact <u>Piper Roelen</u> Send Results To <u>Piper Roelen, Anne Halverson, Martin Valeri</u>					<b>Testing Parameters</b> <div style="text-align: center; margin-bottom: 10px;"> <input checked="" type="checkbox"/> Standard  <input type="checkbox"/> Accelerated  <input type="checkbox"/> </div> <div style="display: flex; justify-content: space-between;"> <span>Turnaround Time</span> <span><u>10-15 days</u></span> </div> <div style="display: flex; justify-content: space-between;"> <span>Toluene</span> <span>TCE</span> <span>SVHC</span> </div> <div style="display: flex; justify-content: space-between;"> <span>DCE</span> <span>Vinyl Chloride</span> </div>									
Sample I.D.	Date	Time	Matrix	No. of Containers	Observations/Comments									
70M Palatine-Basement: 030513	3-6-13	843	Air	1	X					<input type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion				
7010 Palatine-Basement: 030513	3-6-13	901	Air	1	X					<input type="checkbox"/> NWTPH-Dx - run acid wash/silica gel cleanup				
Church-Basement: 030513	3-6-13	920	Air	1	X					<input type="checkbox"/> run samples standardized to product				
Heuvers Supply-NW Corner: 030513	3-6-13	1043	Air	1	X					<input type="checkbox"/> Analyze for EPH if no specific product identified				
7013 Greenwood-Basement: 030513	3-6-13	1744	Air	1	X					<input type="checkbox"/> VOC/BTEX/VPH (soil): <input type="checkbox"/> non-preserved <input type="checkbox"/> preserved w/methanol <input type="checkbox"/> preserved w/sodium bisulfite <input type="checkbox"/> Freeze upon receipt				
2013 Greenwood-Tower: 030513	3-6-13	1804	Air	1	X					<input type="checkbox"/> Dissolved metal water samples field filtered				
202 Palatine-Basement: 030513	3-6-13	1913	Air	1	X					<input type="checkbox"/> Other PCE, TCE & Vinyl chloride for SIM Analyses, & DCE				
Special Shipment/Handling or Storage Requirements <u>PCE, TCE, DCE, &amp; VC</u>					Method of Shipment									
Relinquished by <u>Devan Brandt</u> Signature <u>Devan Brandt</u> Printed Name <u>Landau Associates</u> Company	Received by <u>ATL</u> 3/11/13 (UPS) Signature <u>Annelia Atkins</u> Printed Name <u>ATL</u> Company				Relinquished by Signature Printed Name Company Date <u>3-7-13</u> Time <u>854</u>					Received by Signature Printed Name Company Date <u>3-11-13</u> Time <u>1000</u>				
Date <u>3-7-13</u> Time <u>854</u> Date <u>3/11/13</u> Time <u>1000</u>										Custody Seal Intact? <div style="display: flex; align-items: center;"> <span><input checked="" type="radio"/> Y</span> <span><input type="radio"/> N</span> <span>None Temp</span> </div>				

4/1/2013

Mr. Piper Roelen  
Landau Associates, Inc.  
130 2nd Avenue South

Edmonds WA 98020

Project Name: Heavens Supply  
Project #: 583002.050.057  
Workorder #: 1303478

Dear Mr. Piper Roelen

The following report includes the data for the above referenced project for sample(s) received on 3/25/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 SIM are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner  
Project Manager

**WORK ORDER #:** 1303478

## Work Order Summary

**CLIENT:** Mr. Piper Roelen  
 Landau Associates, Inc.  
 130 2nd Avenue South  
 Edmonds, WA 98020

**BILL TO:** Mr. Piper Roelen  
 Landau Associates, Inc.  
 130 2nd Avenue South  
 Edmonds, WA 98020

**PHONE:** 800-552-5957  
**FAX:** 425-778-6409  
**DATE RECEIVED:** 03/25/2013  
**DATE COMPLETED:** 04/01/2013

**P.O. #**  
**PROJECT #** 583002.050.057 Heavens Supply  
**CONTACT:** Kelly Buettner

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	7014 Palatine-Basement:031913	Modified TO-15 SIM	0 psi	5 psi
02A	202 Palatine-Basement:031913	Modified TO-15 SIM	1 "Hg	4.9 psi
03A(cancelled)	Church-Basement:031913	Modified TO-15 SIM	28.7 "Hg	4.7 psi
04A	HeavensSupply-OD:031913	Modified TO-15 SIM	2 "Hg	4.9 psi
05A	7013 Greenwood-Basement:031913	Modified TO-15 SIM	0.8 "Hg	4.9 psi
06A	Lab Blank	Modified TO-15 SIM	NA	NA
06B	Lab Blank	Modified TO-15 SIM	NA	NA
07A	CCV	Modified TO-15 SIM	NA	NA
07B	CCV	Modified TO-15 SIM	NA	NA
08A	LCS	Modified TO-15 SIM	NA	NA
08AA	LCSD	Modified TO-15 SIM	NA	NA
08B	LCS	Modified TO-15 SIM	NA	NA
08BB	LCSD	Modified TO-15 SIM	NA	NA

CERTIFIED BY:

*Heidi Hayes*

DATE: 04/01/13

Technical Director

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,  
 TX NELAP - T104704434-12-4, UT NELAP CA009332012-3, WA NELAP - C935

Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2012, Expiration date: 10/17/2013.

Eurofins Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



**LABORATORY NARRATIVE  
Modified TO-15 SIM  
Landau Associates, Inc.  
Workorder# 1303478**

Five 6 Liter Summa Canister (SIM Certified) samples were received on March 25, 2013. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<b>Requirement</b>	<b>TO-15</b>	<b>ATL Modifications</b>
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+ - 30% Difference	Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%;, flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

### **Receiving Notes**

Sample Church-Basement:031913 was received with significant vacuum remaining in the canister. The client was contacted, and the sample was cancelled.

### **Analytical Notes**

There were no analytical discrepancies.

### **Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See

data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

**Client Sample ID: 7014 Palatine-Basement:031913**

**Lab ID#: 1303478-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0040	0.044	0.022	0.24
Tetrachloroethene	0.027	0.072	0.18	0.49

**Client Sample ID: 202 Palatine-Basement:031913**

**Lab ID#: 1303478-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0041	0.0062	0.022	0.033
Tetrachloroethene	0.028	0.084	0.19	0.57

**Client Sample ID: HeavensSupply-OD:031913**

**Lab ID#: 1303478-04A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0043	0.071	0.023	0.38
Tetrachloroethene	0.029	0.12	0.19	0.79

**Client Sample ID: 7013 Greenwood-Basement:031913**

**Lab ID#: 1303478-05A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0041	0.0073	0.022	0.039
Tetrachloroethene	0.027	0.055	0.18	0.38



Air Toxics

Client Sample ID: 7014 Palatine-Basement:031913

Lab ID#: 1303478-01A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c032616sim	Date of Collection:	3/19/13 9:02:00 AM	
Dil. Factor:	1.34	Date of Analysis:	3/26/13 10:04 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.013	Not Detected	0.034	Not Detected
Trichloroethene	0.0040	0.044	0.022	0.24
Tetrachloroethene	0.027	0.072	0.18	0.49
cis-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: 202 Palatine-Basement:031913

Lab ID#: 1303478-02A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c032617sim	Date of Collection:	3/19/13 9:29:00 AM	
Dil. Factor:	1.38	Date of Analysis:	3/26/13 10:56 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.014	Not Detected	0.035	Not Detected
Trichloroethene	0.0041	0.0062	0.022	0.033
Tetrachloroethene	0.028	0.084	0.19	0.57
cis-1,2-Dichloroethene	0.028	Not Detected	0.11	Not Detected

**Container Type: 6 Liter Summa Canister (SIM Certified)**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: HeavensSupply-OD:031913

Lab ID#: 1303478-04A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c032619sim	Date of Collection:	3/19/13 10:32:00 AM	
Dil. Factor:	1.43	Date of Analysis:	3/27/13 07:43 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.014	Not Detected	0.036	Not Detected
Trichloroethene	0.0043	0.071	0.023	0.38
Tetrachloroethene	0.029	0.12	0.19	0.79
cis-1,2-Dichloroethene	0.029	Not Detected	0.11	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: 7013 Greenwood-Basement:031913

Lab ID#: 1303478-05A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c032707sim	Date of Collection:	3/19/13 5:30:00 PM	
Dil. Factor:	1.37	Date of Analysis:	3/27/13 01:21 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.014	Not Detected	0.035	Not Detected
Trichloroethene	0.0041	0.0073	0.022	0.039
Tetrachloroethene	0.027	0.055	0.18	0.38
cis-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1303478-06A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c032606sima	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 3/26/13 12:50 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	0-130
Toluene-d8	100	0-130
4-Bromofluorobenzene	100	0-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1303478-06B

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c032706sima	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	3/27/13 11:55 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1303478-07A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c032602sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/26/13 09:33 AM

Compound	%Recovery
Vinyl Chloride	88
Trichloroethene	90
Tetrachloroethene	98
cis-1,2-Dichloroethene	93

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	112	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1303478-07B

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c032702sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/27/13 08:45 AM

Compound	%Recovery
Vinyl Chloride	86
Trichloroethene	88
Tetrachloroethene	95
cis-1,2-Dichloroethene	92

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	118	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1303478-08A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c032603sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/26/13 10:23 AM

Compound	%Recovery
Vinyl Chloride	94
Trichloroethene	95
Tetrachloroethene	102
cis-1,2-Dichloroethene	97

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	114	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1303478-08AA

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c032604sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/26/13 11:06 AM

Compound	%Recovery
Vinyl Chloride	92
Trichloroethene	94
Tetrachloroethene	101
cis-1,2-Dichloroethene	96

**Container Type: NA - Not Applicable**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	116	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1303478-08B

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c032703sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/27/13 09:29 AM

Compound	%Recovery
Vinyl Chloride	91
Trichloroethene	93
Tetrachloroethene	99
cis-1,2-Dichloroethene	94

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	114	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1303478-08BB

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c032704sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/27/13 10:14 AM

Compound	%Recovery
Vinyl Chloride	91
Trichloroethene	94
Tetrachloroethene	100
cis-1,2-Dichloroethene	94

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	114	70-130



LANDAU  
ASSOCIATES

- Seattle/Edmonds (425) 778-0907
  - Tacoma (253) 926-2493
  - Spokane (509) 327-9737
  - Portland (503) 542-1080
  -

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## Custody Seal Intact?

N None Temp ✓

Date 3-21-13

Page \_\_\_\_\_ of \_\_\_\_\_

## **Chain-of-Custody Record**

Project Information					Testing Parameters										Turnaround Time
Project Name	Heavens Supply		Project No.	S83002.050.057											<input type="checkbox"/> Standard
Project Location/Event	Seattle, WA												<input checked="" type="checkbox"/> Accelerated		
Sampler's Name	Devon Brandt												<input type="checkbox"/> 2 Day		
Project Contact	Piper Roelen														
Send Results To	Piper Roelen, Kurt Hultvasson, Martin Voller														
Sample I.D.	Date	Time	Matrix	No. of Containers	PCP/TCPP/DBP/Co-153										Observations/Comments
201 Palatine - Basement:031913	3-19-13	9:02	Air	1	X										X Allow water samples to settle, collect aliquot from clear portion
202 Palatine - Basement:031913	3-19-13	9:29	Air	1		X									X NWTPH-Dx - run acid wash/silica gel cleanup
Church - Basement: 031913	3-19-13	9:56	Air	1	X										
Heavens Supply -OD:031913	3-19-13	10:32	Air	1		X									
7013 Greenwood -Basement:031913	3-19-13	17:30	Air	1	X										run samples standardized to product
															Analyze for EPH if no specific product identified
															VOC/BTEX/VPH (soil):
															<input type="checkbox"/> non-preserved
															<input type="checkbox"/> preserved w/methanol
															<input type="checkbox"/> preserved w/sodium bisulfate
															Freeze upon receipt
															Dissolved metal water samples field filtered
															Other
Special Shipment/Handling or Storage Requirements										Method of Shipment				FedEx	
Relinquished by <i>Devon Brandt</i>			Received by <i>Angela Ahrens</i>			Relinquished by				Received by					
Signature <i>Devon Brandt</i>			Signature <i>Angela Ahrens</i>			Signature				Signature					
Printed Name Landon Associates			Printed Name <i>ATL</i>			Printed Name				Printed Name					
Company			Company			Company				Company					
Date 3-21-13 Time 1601			Date 3/25/13 Time 0940			Date				Time					

4/3/2013

Mr. Piper Roelen  
Landau Associates, Inc.  
130 2nd Avenue South

Edmonds WA 98020

Project Name: Heaven Supply  
Project #: 583002.050.057  
Workorder #: 1303608

Dear Mr. Piper Roelen

The following report includes the data for the above referenced project for sample(s) received on 3/29/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 SIM are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner  
Project Manager

**WORK ORDER #:** 1303608

## Work Order Summary

**CLIENT:** Mr. Piper Roelen  
 Landau Associates, Inc.  
 130 2nd Avenue South  
 Edmonds, WA 98020

**BILL TO:** Mr. Piper Roelen  
 Landau Associates, Inc.  
 130 2nd Avenue South  
 Edmonds, WA 98020

**PHONE:** 800-552-5957  
**FAX:** 425-778-6409  
**DATE RECEIVED:** 03/29/2013  
**DATE COMPLETED:** 04/03/2013

**P.O. #**  
**PROJECT #** 583002.050.057 Heaven Supply  
**CONTACT:** Kelly Buettner

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	7013 Greenwood-Basement:032713	Modified TO-15 SIM	0.0 "Hg	5 psi
02A	7014 Palatine-Basement:032713	Modified TO-15 SIM	0.0 "Hg	5 psi
03A	202 Palatine-Basement:032713	Modified TO-15 SIM	5.5 "Hg	5 psi
04A	7010 Palatine-Basement:032713	Modified TO-15 SIM	3.0 "Hg	5 psi
05A	Lab Blank	Modified TO-15 SIM	NA	NA
06A	CCV	Modified TO-15 SIM	NA	NA
07A	LCS	Modified TO-15 SIM	NA	NA
07AA	LCSD	Modified TO-15 SIM	NA	NA

CERTIFIED BY:

DATE: 04/03/13

Technical Director

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,  
 TX NELAP - T104704434-12-4, UT NELAP CA009332012-3, WA NELAP - C935

Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2012, Expiration date: 10/17/2013.

Eurofins Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



**LABORATORY NARRATIVE  
Modified TO-15 SIM  
Landau Associates, Inc.  
Workorder# 1303608**

Four 6 Liter Summa Canister (SIM Certified) samples were received on March 29, 2013. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<b>Requirement</b>	<b>TO-15</b>	<b>ATL Modifications</b>
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+ - 30% Difference	Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%;, flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

### **Receiving Notes**

Despite the use of flow controllers for sample collection, the final canister vacuums for samples 7013 Greenwood-Basement:032713 and 7014 Palatine-Basement:032713 were measured at ambient pressure in the field. These ambient pressure readings were confirmed by the laboratory upon sample receipt.

### **Analytical Notes**

There were no analytical discrepancies.

### **Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

**Client Sample ID: 7013 Greenwood-Basement:032713**

**Lab ID#: 1303608-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0040	0.0048	0.022	0.026
Tetrachloroethene	0.027	0.028	0.18	0.19

**Client Sample ID: 7014 Palatine-Basement:032713**

**Lab ID#: 1303608-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0040	0.0090	0.022	0.048
Tetrachloroethene	0.027	0.038	0.18	0.26

**Client Sample ID: 202 Palatine-Basement:032713**

**Lab ID#: 1303608-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0049	0.013	0.026	0.072
Tetrachloroethene	0.033	0.13	0.22	0.89

**Client Sample ID: 7010 Palatine-Basement:032713**

**Lab ID#: 1303608-04A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0045	0.012	0.024	0.068
Tetrachloroethene	0.030	0.067	0.20	0.45



Air Toxics

Client Sample ID: 7013 Greenwood-Basement:032713

Lab ID#: 1303608-01A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c040107sim	Date of Collection:	3/27/13 5:40:00 PM	
Dil. Factor:	1.34	Date of Analysis:	4/1/13 01:58 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.013	Not Detected	0.034	Not Detected
Trichloroethene	0.0040	0.0048	0.022	0.026
Tetrachloroethene	0.027	0.028	0.18	0.19
cis-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: 7014 Palatine-Basement:032713

Lab ID#: 1303608-02A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c040108sim	Date of Collection:	3/27/13 8:46:00 AM	
Dil. Factor:	1.34	Date of Analysis:	4/1/13 02:34 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.013	Not Detected	0.034	Not Detected
Trichloroethene	0.0040	0.0090	0.022	0.048
Tetrachloroethene	0.027	0.038	0.18	0.26
cis-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected

**Container Type: 6 Liter Summa Canister (SIM Certified)**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: 202 Palatine-Basement:032713

Lab ID#: 1303608-03A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c040109sim	Date of Collection:	3/28/13 8:59:00 AM	
Dil. Factor:	1.64	Date of Analysis:	4/1/13 03:20 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
Trichloroethene	0.0049	0.013	0.026	0.072
Tetrachloroethene	0.033	0.13	0.22	0.89
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected

**Container Type: 6 Liter Summa Canister (SIM Certified)**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: 7010 Palatine-Basement:032713

Lab ID#: 1303608-04A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c040110sim	Date of Collection:	3/28/13 8:52:00 AM	
Dil. Factor:	1.49	Date of Analysis:	4/1/13 03:57 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.015	Not Detected	0.038	Not Detected
Trichloroethene	0.0045	0.012	0.024	0.068
Tetrachloroethene	0.030	0.067	0.20	0.45
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected

**Container Type: 6 Liter Summa Canister (SIM Certified)**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1303608-05A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c040106sima	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 4/1/13 01:00 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1303608-06A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c040102sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/1/13 09:07 AM

Compound	%Recovery
Vinyl Chloride	87
Trichloroethene	96
Tetrachloroethene	106
cis-1,2-Dichloroethene	91

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1303608-07A

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c040103sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/1/13 09:50 AM

Compound	%Recovery
Vinyl Chloride	96
Trichloroethene	102
Tetrachloroethene	110
cis-1,2-Dichloroethene	96

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	109	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1303608-07AA

**MODIFIED EPA METHOD TO-15 GC/MS SIM**

File Name:	c040104sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/1/13 11:06 AM

Compound	%Recovery
Vinyl Chloride	92
Trichloroethene	98
Tetrachloroethene	104
cis-1,2-Dichloroethene	92

**Container Type: NA - Not Applicable**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	107	70-130



ATTACHMENT 4

## **Laboratory Analytical Reports – Vapor (Soil and ERH/SVE System)**



March 4, 2013

Mr. Piper Roelen  
Landau Associates, Inc.  
130 - 2nd Ave. S.  
Edmonds, WA 98020

Dear Mr. Roelen,

On March 1st, 6 samples were received by our laboratory and assigned our laboratory project number EV13030002. The project was identified as your Heaven's Supply/Riddell / Proj #583002.050.056. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

A handwritten signature in black ink that reads "Rick Bagan".

Rick Bagan  
Laboratory Director

Page 1

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626

ALS Laboratory Group A Campbell Brothers Limited Company

Environmental

[www.alsglobal.com](http://www.alsglobal.com)

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## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/4/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030002  
Edmonds, WA 98020 ALS SAMPLE#: -01  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/1/2013  
CLIENT PROJECT: Heaven's Supply/Riddell / Proj COLLECTION DATE: 2/28/2013 1:56:00 PM  
#583002.050.056  
CLIENT SAMPLE ID SMW-3:022813 WDOE ACCREDITATION: C601

### DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	ANALYSIS	
					UNITS	DATE BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/01/2013 GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/01/2013 GAP
Trichloroethene	EPA-8260	<b>0.041</b>	0.0054	1	UG/M3	03/01/2013 GAP
Tetrachloroethylene	EPA-8260	<b>1.8</b>	0.0023	1	UG/M3	03/01/2013 GAP

SURROGATE	METHOD	%REC	ANALYSIS	
			DATE	BY
1,2-Dichloroethane-d4	EPA-8260	<b>84.4</b>		03/01/2013 GAP

U - Analyte analyzed for but not detected at level above reporting limit.



### CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/4/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030002  
Edmonds, WA 98020 ALS SAMPLE#: -02  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/1/2013  
CLIENT PROJECT: Heaven's Supply/Riddell / Proj COLLECTION DATE: 2/28/2013 2:21:00 PM  
#583002.050.056  
CLIENT SAMPLE ID SMW-4:022813 WDOE ACCREDITATION: C601

### DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/01/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/01/2013	GAP
Trichloroethene	EPA-8260	<b>0.018</b>	0.0054	1	UG/M3	03/01/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.46</b>	0.0023	1	UG/M3	03/01/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>86.8</b>	03/01/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/4/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030002  
Edmonds, WA 98020 ALS SAMPLE#: -03  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/1/2013  
CLIENT PROJECT: Heaven's Supply/Riddell / Proj COLLECTION DATE: 2/28/2013 2:38:00 PM  
#583002.050.056  
CLIENT SAMPLE ID VMW-1:022813 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/01/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/01/2013	GAP
Trichloroethene	EPA-8260	<b>0.019</b>	0.0054	1	UG/M3	03/01/2013	GAP
Tetrachloroethylene	EPA-8260	<b>4.1</b>	0.0023	1	UG/M3	03/01/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>87.5</b>	03/01/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/4/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030002  
Edmonds, WA 98020 ALS SAMPLE#: -04  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/1/2013  
CLIENT PROJECT: Heaven's Supply/Riddell / Proj COLLECTION DATE: 2/28/2013 3:15:00 PM  
#583002.050.056  
CLIENT SAMPLE ID SMW-2:022813 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/01/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/01/2013	GAP
Trichloroethene	EPA-8260	<b>0.021</b>	0.0054	1	UG/M3	03/01/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.26</b>	0.0023	1	UG/M3	03/01/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>89.0</b>	03/01/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/4/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030002  
Edmonds, WA 98020 ALS SAMPLE#: -05  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/1/2013  
CLIENT PROJECT: Heaven's Supply/Riddell / Proj COLLECTION DATE: 2/28/2013 3:33:00 PM  
#583002.050.056  
CLIENT SAMPLE ID VMW-4:022813 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/01/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/01/2013	GAP
Trichloroethene	EPA-8260	<b>0.018</b>	0.0054	1	UG/M3	03/01/2013	GAP
Tetrachloroethylene	EPA-8260	<b>1.4</b>	0.0023	1	UG/M3	03/01/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>89.5</b>	03/01/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/4/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030002  
Edmonds, WA 98020 ALS SAMPLE#: -06  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/1/2013  
CLIENT PROJECT: Heaven's Supply/Riddell / Proj COLLECTION DATE: 2/28/2013 3:53:00 PM  
#583002.050.056  
CLIENT SAMPLE ID VMW-3:022813 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/01/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/01/2013	GAP
Trichloroethene	EPA-8260	<b>0.075</b>	0.0054	1	UG/M3	03/01/2013	GAP
Tetrachloroethylene	EPA-8260	<b>1.5</b>	0.0023	1	UG/M3	03/01/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>85.6</b>	03/01/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/4/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030002  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen  
CLIENT PROJECT: Heaven's Supply/Riddell / Proj  
#583002.050.056

## LABORATORY BLANK RESULTS

### MB-030113A - Batch 3519 - Air by EPA-8260

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	ANALYSIS		
					UNITS	DATE	BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/01/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.20	1	UG/M3	03/01/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/01/2013	GAP
Trichloroethylene	EPA-8260	U	0.0054	1	UG/M3	03/01/2013	GAP
Toluene	EPA-8260	U	0.20	1	UG/M3	03/01/2013	GAP
Tetrachloroethylene	EPA-8260	U	0.0023	1	UG/M3	03/01/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/4/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030002  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen

CLIENT PROJECT: Heaven's Supply/Riddell / Proj #583002.050.056

## LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 3519 - Air by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	128			03/01/2013	GAP
1,1-Dichloroethene - BSD	EPA-8260	123	4		03/01/2013	GAP
Trichloroethene - BS	EPA-8260	97.0			03/01/2013	GAP
Trichloroethene - BSD	EPA-8260	101	4		03/01/2013	GAP
Toluene - BS	EPA-8260	104			03/01/2013	GAP
Toluene - BSD	EPA-8260	107	4		03/01/2013	GAP

APPROVED BY

A handwritten signature in black ink, appearing to read "Bob Bayor".

Laboratory Director

# ALS ENVIRONMENTAL

## Sample Receiving Checklist

Client: Landau Associates ALS Job #: EV13030002

Project: Heaven's Supply / Riddell / # 583002.050.056

Received Date: 3/1/13 Received Time: 10:20 By: SAC

Type of shipping container: Cooler  Box  Other

Shipped via: UPS/FedEx  US Postal Service  Courier  Hand Delivered  By Glen

Were custody seals on outside of sample? Yes  No  N/A

If yes, how many? 1 Where? outside cooler

Custody seal date: 3/1/13 Seal name: Landau

Was Chain of Custody properly filled out (ink, signed, dated, etc.)?

Did all bottles have labels?

Did all bottle labels and tags agree with Chain of Custody?

Were samples received within hold time?

Did all bottles arrive in good condition (unbroken, etc.)?

Was sufficient amount of sample sent for the tests indicated?

Was correct preservation added to samples?

If no, Sample Control added preservative to the following:

<u>Sample Number</u>	<u>Reagent</u>	<u>Analyte</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Were VOA vials checked for absence of air bubbles?

Bubbles present in sample #: \_\_\_\_\_

Temperature of cooler upon receipt: Air Cold Cool Ambient  N/A

Explain any discrepancies: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Was client contacted? \_\_\_\_\_ Who was called? \_\_\_\_\_ By whom? \_\_\_\_\_ Date: \_\_\_\_\_

Outcome of call: \_\_\_\_\_  
\_\_\_\_\_





April 1, 2013

Mr. Piper Roelen  
Landau Associates, Inc.  
130 - 2nd Ave. S.  
Edmonds, WA 98020

Dear Mr. Roelen,

On March 6th, 3 samples were received by our laboratory and assigned our laboratory project number EV13030027. The project was identified as your Heavens Supply / #583002.050.056. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

A handwritten signature in black ink that reads "Rick Bagan".

Rick Bagan  
Laboratory Director

Page 1

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626

ALS Laboratory Group A Campbell Brothers Limited Company

Environmental

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RIGHT SOLUTIONS RIGHT PARTNER

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030027  
 Edmonds, WA 98020 ALS SAMPLE#: -01  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/6/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/5/2013 5:11:00 PM  
 CLIENT SAMPLE ID ERH-EFF:030513 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	0.0094	1	MG/M3	03/06/2013	GAP
Chloromethane	EPA-8260	U	0.023	1	MG/M3	03/06/2013	GAP
Vinyl Chloride	EPA-8260	U	0.0031	1	MG/M3	03/06/2013	GAP
Bromomethane	EPA-8260	U	0.014	1	MG/M3	03/06/2013	GAP
Chloroethane	EPA-8260	U	0.012	1	MG/M3	03/06/2013	GAP
Carbon Tetrachloride	EPA-8260	U	0.0025	1	MG/M3	03/06/2013	GAP
Trichlorofluoromethane	EPA-8260	U	0.0045	1	MG/M3	03/06/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	MG/M3	03/06/2013	GAP
Methylene Chloride	EPA-8260	U	0.068	1	MG/M3	03/06/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	0.0097	1	MG/M3	03/06/2013	GAP
1,1-Dichloroethane	EPA-8260	U	0.0030	1	MG/M3	03/06/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	MG/M3	03/06/2013	GAP
2,2-Dichloropropane	EPA-8260	U	0.0041	1	MG/M3	03/06/2013	GAP
Bromoform	EPA-8260	U	0.011	1	MG/M3	03/06/2013	GAP
Chloroform	EPA-8260	<b>0.11</b>	0.014	1	MG/M3	03/06/2013	GAP
1,1,1-Trichloroethane	EPA-8260	<b>0.029</b>	0.0059	1	MG/M3	03/06/2013	GAP
1,1-Dichloropropene	EPA-8260	U	0.0067	1	MG/M3	03/06/2013	GAP
1,2-Dichloroethane	EPA-8260	<b>0.017</b>	0.0014	1	MG/M3	03/06/2013	GAP
Trichloroethylene	EPA-8260	<b>0.43</b>	0.0054	1	MG/M3	03/06/2013	GAP
1,2-Dichloropropane	EPA-8260	U	0.0063	1	MG/M3	03/06/2013	GAP
Dibromomethane	EPA-8260	U	0.0071	1	MG/M3	03/06/2013	GAP
Bromodichloromethane	EPA-8260	U	0.0059	1	MG/M3	03/06/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	0.0058	1	MG/M3	03/06/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	0.0048	1	MG/M3	03/06/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	0.0052	1	MG/M3	03/06/2013	GAP
1,3-Dichloropropane	EPA-8260	U	0.0066	1	MG/M3	03/06/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.16</b>	0.0023	1	MG/M3	03/06/2013	GAP
Dibromochloromethane	EPA-8260	U	0.0074	1	MG/M3	03/06/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.0010	1	MG/M3	03/06/2013	GAP
Chlorobenzene	EPA-8260	U	0.0024	1	MG/M3	03/06/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	0.0087	1	MG/M3	03/06/2013	GAP
Bromoform	EPA-8260	U	0.0053	1	MG/M3	03/06/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	0.0029	1	MG/M3	03/06/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	0.0023	1	MG/M3	03/06/2013	GAP
Bromobenzene	EPA-8260	U	0.0041	1	MG/M3	03/06/2013	GAP
2-Chlorotoluene	EPA-8260	<b>0.13</b>	0.0032	1	MG/M3	03/06/2013	GAP
4-Chlorotoluene	EPA-8260	<b>0.022</b>	0.0040	1	MG/M3	03/06/2013	GAP
1,3 Dichlorobenzene	EPA-8260	<b>0.020</b>	0.0041	1	MG/M3	03/06/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030027  
Edmonds, WA 98020 ALS SAMPLE#: -01  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/6/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/5/2013 5:11:00 PM  
CLIENT SAMPLE ID ERH-EFF:030513 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8260	<b>0.027</b>	0.0045	1	MG/M3	03/06/2013	GAP
1,2-Dichlorobenzene	EPA-8260	<b>0.043</b>	0.0028	1	MG/M3	03/06/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	0.010	1	MG/M3	03/06/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	<b>0.043</b>	0.0047	1	MG/M3	03/06/2013	GAP
Hexachlorobutadiene	EPA-8260	U	0.0069	1	MG/M3	03/06/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	0.0045	1	MG/M3	03/06/2013	GAP
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>102</b>				03/06/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>97.0</b>				03/06/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030027  
 Edmonds, WA 98020 ALS SAMPLE#: -02  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/6/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/5/2013 5:00:00 PM  
 CLIENT SAMPLE ID ERH-MID1:030513 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	0.0094	1	MG/M3	03/06/2013	GAP
Chloromethane	EPA-8260	U	0.023	1	MG/M3	03/06/2013	GAP
Vinyl Chloride	EPA-8260	U	0.0031	1	MG/M3	03/06/2013	GAP
Bromomethane	EPA-8260	U	0.014	1	MG/M3	03/06/2013	GAP
Chloroethane	EPA-8260	U	0.012	1	MG/M3	03/06/2013	GAP
Carbon Tetrachloride	EPA-8260	U	0.0025	1	MG/M3	03/06/2013	GAP
Trichlorofluoromethane	EPA-8260	U	0.0045	1	MG/M3	03/06/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	MG/M3	03/06/2013	GAP
Methylene Chloride	EPA-8260	U	0.068	1	MG/M3	03/06/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	0.0097	1	MG/M3	03/06/2013	GAP
1,1-Dichloroethane	EPA-8260	U	0.0030	1	MG/M3	03/06/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	MG/M3	03/06/2013	GAP
2,2-Dichloropropane	EPA-8260	<b>0.010</b>	0.0041	1	MG/M3	03/06/2013	GAP
Bromochloromethane	EPA-8260	U	0.011	1	MG/M3	03/06/2013	GAP
Chloroform	EPA-8260	<b>0.10</b>	0.014	1	MG/M3	03/06/2013	GAP
1,1,1-Trichloroethane	EPA-8260	<b>0.026</b>	0.0059	1	MG/M3	03/06/2013	GAP
1,1-Dichloropropene	EPA-8260	U	0.0067	1	MG/M3	03/06/2013	GAP
1,2-Dichloroethane	EPA-8260	<b>0.012</b>	0.0014	1	MG/M3	03/06/2013	GAP
Trichloroethene	EPA-8260	<b>0.25</b>	0.0054	1	MG/M3	03/06/2013	GAP
1,2-Dichloropropane	EPA-8260	U	0.0063	1	MG/M3	03/06/2013	GAP
Dibromomethane	EPA-8260	U	0.0071	1	MG/M3	03/06/2013	GAP
Bromodichloromethane	EPA-8260	U	0.0059	1	MG/M3	03/06/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	0.0058	1	MG/M3	03/06/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	0.0048	1	MG/M3	03/06/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	0.0052	1	MG/M3	03/06/2013	GAP
1,3-Dichloropropane	EPA-8260	U	0.0066	1	MG/M3	03/06/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.13</b>	0.0023	1	MG/M3	03/06/2013	GAP
Dibromochloromethane	EPA-8260	U	0.0074	1	MG/M3	03/06/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.0010	1	MG/M3	03/06/2013	GAP
Chlorobenzene	EPA-8260	U	0.0024	1	MG/M3	03/06/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	0.0087	1	MG/M3	03/06/2013	GAP
Bromoform	EPA-8260	U	0.0053	1	MG/M3	03/06/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	0.0029	1	MG/M3	03/06/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	0.0023	1	MG/M3	03/06/2013	GAP
Bromobenzene	EPA-8260	U	0.0041	1	MG/M3	03/06/2013	GAP
2-Chlorotoluene	EPA-8260	<b>0.067</b>	0.0032	1	MG/M3	03/06/2013	GAP
4-Chlorotoluene	EPA-8260	<b>0.018</b>	0.0040	1	MG/M3	03/06/2013	GAP
1,3 Dichlorobenzene	EPA-8260	<b>0.016</b>	0.0041	1	MG/M3	03/06/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030027  
Edmonds, WA 98020 ALS SAMPLE#: -02  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/6/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/5/2013 5:00:00 PM  
CLIENT SAMPLE ID ERH-MID1:030513 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8260	U	0.0045	1	MG/M3	03/06/2013	GAP
1,2-Dichlorobenzene	EPA-8260	<b>0.027</b>	0.0028	1	MG/M3	03/06/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	0.010	1	MG/M3	03/06/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	<b>0.032</b>	0.0047	1	MG/M3	03/06/2013	GAP
Hexachlorobutadiene	EPA-8260	U	0.0069	1	MG/M3	03/06/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	<b>0.027</b>	0.0045	1	MG/M3	03/06/2013	GAP
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>109</b>				03/06/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>96.5</b>				03/06/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030027  
 Edmonds, WA 98020 ALS SAMPLE#: -03  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/6/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/5/2013 4:49:00 PM  
 CLIENT SAMPLE ID ERH-Inf:030513 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	0.0094	1	MG/M3	03/06/2013	GAP
Chloromethane	EPA-8260	U	0.023	1	MG/M3	03/06/2013	GAP
Vinyl Chloride	EPA-8260	U	0.0031	1	MG/M3	03/06/2013	GAP
Bromomethane	EPA-8260	U	0.014	1	MG/M3	03/06/2013	GAP
Chloroethane	EPA-8260	U	0.012	1	MG/M3	03/06/2013	GAP
Carbon Tetrachloride	EPA-8260	U	0.0025	1	MG/M3	03/06/2013	GAP
Trichlorofluoromethane	EPA-8260	U	0.0045	1	MG/M3	03/06/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	MG/M3	03/06/2013	GAP
Methylene Chloride	EPA-8260	U	0.068	1	MG/M3	03/06/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	0.0097	1	MG/M3	03/06/2013	GAP
1,1-Dichloroethane	EPA-8260	U	0.0030	1	MG/M3	03/06/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	MG/M3	03/06/2013	GAP
2,2-Dichloropropane	EPA-8260	U	0.0041	1	MG/M3	03/06/2013	GAP
Bromochloromethane	EPA-8260	U	0.011	1	MG/M3	03/06/2013	GAP
Chloroform	EPA-8260	<b>0.11</b>	0.014	1	MG/M3	03/06/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	0.0059	1	MG/M3	03/06/2013	GAP
1,1-Dichloropropene	EPA-8260	U	0.0067	1	MG/M3	03/06/2013	GAP
1,2-Dichloroethane	EPA-8260	<b>0.012</b>	0.0014	1	MG/M3	03/06/2013	GAP
Trichloroethene	EPA-8260	<b>0.34</b>	0.0054	1	MG/M3	03/06/2013	GAP
1,2-Dichloropropane	EPA-8260	U	0.0063	1	MG/M3	03/06/2013	GAP
Dibromomethane	EPA-8260	U	0.0071	1	MG/M3	03/06/2013	GAP
Bromodichloromethane	EPA-8260	U	0.0059	1	MG/M3	03/06/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	0.0058	1	MG/M3	03/06/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	0.0048	1	MG/M3	03/06/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	0.0052	1	MG/M3	03/06/2013	GAP
1,3-Dichloropropane	EPA-8260	U	0.0066	1	MG/M3	03/06/2013	GAP
Tetrachloroethylene	EPA-8260	<b>83</b>	0.023	10	MG/M3	03/07/2013	GAP
Dibromochloromethane	EPA-8260	U	0.0074	1	MG/M3	03/06/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.0010	1	MG/M3	03/06/2013	GAP
Chlorobenzene	EPA-8260	U	0.0024	1	MG/M3	03/06/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	0.0087	1	MG/M3	03/06/2013	GAP
Bromoform	EPA-8260	U	0.0053	1	MG/M3	03/06/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	0.0029	1	MG/M3	03/06/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	0.0023	1	MG/M3	03/06/2013	GAP
Bromobenzene	EPA-8260	U	0.0041	1	MG/M3	03/06/2013	GAP
2-Chlorotoluene	EPA-8260	<b>0.053</b>	0.0032	1	MG/M3	03/06/2013	GAP
4-Chlorotoluene	EPA-8260	<b>0.020</b>	0.0040	1	MG/M3	03/06/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	0.0041	1	MG/M3	03/06/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030027  
Edmonds, WA 98020 ALS SAMPLE#: -03  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/6/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/5/2013 4:49:00 PM  
CLIENT SAMPLE ID ERH-Inf:030513 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8260	U	0.0045	1	MG/M3	03/06/2013	GAP
1,2-Dichlorobenzene	EPA-8260	<b>0.026</b>	0.0028	1	MG/M3	03/06/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	0.010	1	MG/M3	03/06/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	0.0047	1	MG/M3	03/06/2013	GAP
Hexachlorobutadiene	EPA-8260	U	0.0069	1	MG/M3	03/06/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	<b>0.035</b>	0.0045	1	MG/M3	03/06/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>108</b>	03/06/2013	GAP
1,2-Dichloroethane-d4 10X Dilution	EPA-8260	<b>99.8</b>	03/07/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>101</b>	03/06/2013	GAP
4-Bromofluorobenzene 10X Dilution	EPA-8260	<b>95.7</b>	03/07/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

**CLIENT:** Landau Associates, Inc. **DATE:** 4/1/2013  
 130 - 2nd Ave. S. **ALS SDG#:** EV13030027  
 Edmonds, WA 98020 **WDOE ACCREDITATION:** C601  
**CLIENT CONTACT:** Piper Roelen  
**CLIENT PROJECT:** Heavens Supply / #583002.050.056

**LABORATORY BLANK RESULTS**
**MB-030513A - Batch 3546 - Air by EPA-8260**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	0.0094	1	MG/M3	03/05/2013	GAP
Chloromethane	EPA-8260	U	0.023	1	MG/M3	03/05/2013	GAP
Vinyl Chloride	EPA-8260	U	0.0031	1	MG/M3	03/05/2013	GAP
Bromomethane	EPA-8260	U	0.014	1	MG/M3	03/05/2013	GAP
Chloroethane	EPA-8260	U	0.012	1	MG/M3	03/05/2013	GAP
Carbon Tetrachloride	EPA-8260	U	0.0025	1	MG/M3	03/05/2013	GAP
Trichlorofluoromethane	EPA-8260	U	0.0045	1	MG/M3	03/05/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	MG/M3	03/05/2013	GAP
Methylene Chloride	EPA-8260	U	0.068	1	MG/M3	03/05/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	0.0097	1	MG/M3	03/05/2013	GAP
1,1-Dichloroethane	EPA-8260	U	0.0030	1	MG/M3	03/05/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	MG/M3	03/05/2013	GAP
2,2-Dichloropropane	EPA-8260	U	0.0041	1	MG/M3	03/05/2013	GAP
Bromochloromethane	EPA-8260	U	0.011	1	MG/M3	03/05/2013	GAP
Chloroform	EPA-8260	U	0.014	1	MG/M3	03/05/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	0.0059	1	MG/M3	03/05/2013	GAP
1,1-Dichloropropene	EPA-8260	U	0.0067	1	MG/M3	03/05/2013	GAP
1,2-Dichloroethane	EPA-8260	U	0.0014	1	MG/M3	03/05/2013	GAP
Trichloroethene	EPA-8260	U	0.0054	1	MG/M3	03/05/2013	GAP
1,2-Dichloropropane	EPA-8260	U	0.0063	1	MG/M3	03/05/2013	GAP
Dibromomethane	EPA-8260	U	0.0071	1	MG/M3	03/05/2013	GAP
Bromodichloromethane	EPA-8260	U	0.0059	1	MG/M3	03/05/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	0.0058	1	MG/M3	03/05/2013	GAP
Toluene	EPA-8260	U	0.0015	1	MG/M3	03/05/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	0.0048	1	MG/M3	03/05/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	0.0052	1	MG/M3	03/05/2013	GAP
1,3-Dichloropropane	EPA-8260	U	0.0066	1	MG/M3	03/05/2013	GAP
Tetrachloroethylene	EPA-8260	U	0.0023	1	MG/M3	03/05/2013	GAP
Dibromochloromethane	EPA-8260	U	0.0074	1	MG/M3	03/05/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.0010	1	MG/M3	03/05/2013	GAP
Chlorobenzene	EPA-8260	U	0.0024	1	MG/M3	03/05/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	0.0087	1	MG/M3	03/05/2013	GAP
Bromoform	EPA-8260	U	0.0053	1	MG/M3	03/05/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	0.0029	1	MG/M3	03/05/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	0.0023	1	MG/M3	03/05/2013	GAP
Bromobenzene	EPA-8260	U	0.0041	1	MG/M3	03/05/2013	GAP
2-Chlorotoluene	EPA-8260	U	0.0032	1	MG/M3	03/05/2013	GAP
4-Chlorotoluene	EPA-8260	U	0.0040	1	MG/M3	03/05/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030027  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen

CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY BLANK RESULTS

### MB-030513A - Batch 3546 - Air by EPA-8260

1,3 Dichlorobenzene	EPA-8260	U	0.0041	1	MG/M3	03/05/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	0.0045	1	MG/M3	03/05/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	0.0028	1	MG/M3	03/05/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	0.010	1	MG/M3	03/05/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	0.0047	1	MG/M3	03/05/2013	GAP
Hexachlorobutadiene	EPA-8260	U	0.0069	1	MG/M3	03/05/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	0.0045	1	MG/M3	03/05/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030027  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen

CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY CONTROL SAMPLE RESULTS

**ALS Test Batch ID: 3546 - Air by EPA-8260**

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	115			03/05/2013	GAP
1,1-Dichloroethene - BSD	EPA-8260	111	4		03/05/2013	GAP
Trichloroethene - BS	EPA-8260	113			03/05/2013	GAP
Trichloroethene - BSD	EPA-8260	114	1		03/05/2013	GAP
Toluene - BS	EPA-8260	113			03/05/2013	GAP
Toluene - BSD	EPA-8260	113	0		03/05/2013	GAP
Chlorobenzene - BS	EPA-8260	101			03/05/2013	GAP
Chlorobenzene - BSD	EPA-8260	105	3		03/05/2013	GAP

APPROVED BY

A handwritten signature in black ink, appearing to read "Bob Bayar".

Laboratory Director

# ALS ENVIRONMENTAL

## Sample Receiving Checklist

Client: Landau Associates ALS Job #: EV13030027

Project: Heavens Supply / # 583002.050.056

Received Date: 3/6/13 Received Time: 2:25 By: SM

Type of shipping container: Cooler  Box  Other

Shipped via: UPS/FedEx  US Postal Service  Courier  Hand Delivered  By Luck

Were custody seals on outside of sample? Yes  No  N/A

If yes, how many? 1 Where? outside box

Custody seal date: 3/5/13 Seal name: Landau

Was Chain of Custody properly filled out (ink, signed, dated, etc.)?

Did all bottles have labels?

Did all bottle labels and tags agree with Chain of Custody?

Were samples received within hold time?

Did all bottles arrive in good condition (unbroken, etc.)?

Was sufficient amount of sample sent for the tests indicated?

Was correct preservation added to samples?

If no, Sample Control added preservative to the following:

<u>Sample Number</u>	<u>Reagent</u>	<u>Analyte</u>
----------------------	----------------	----------------

_____	_____	_____
_____	_____	_____
_____	_____	_____

Were VOA vials checked for absence of air bubbles?

Bubbles present in sample #: \_\_\_\_\_

Temperature of cooler upon receipt: Air Cold Cool Ambient  N/A

Explain any discrepancies:  
\_\_\_\_\_  
\_\_\_\_\_

Was client contacted? \_\_\_\_\_ Who was called? \_\_\_\_\_ By whom? \_\_\_\_\_ Date: \_\_\_\_\_

Outcome of call: \_\_\_\_\_  
\_\_\_\_\_



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ASSOCIATES

- Seattle/Edmonds (425) 778-0907
  - Tacoma (253) 926-2493
  - Spokane (509) 327-9737
  - Portland (503) 542-1080
  -

EN13030027

Date 3-5-13

Page 1 of 1

## **Chain-of-Custody Record**

Project Information					Testing Parameters										
Project Name <u>Havins Supply</u>	Project No. <u>583002.050.056</u>				<input checked="" type="checkbox"/> <u>Accelerated</u> <input type="checkbox"/> <u>Standard</u> <input type="checkbox"/> <u>3 Day</u>										
Project Location/Event <u>Former heavens Supply Site</u>															
Sampler's Name <u>Davan Brandt</u>															
Project Contact <u>Piper Rueter, Anne Holverson</u>															
Send Results To <u>Piper Rueter, Anne Holverson, Martin Valeri</u>															
Sample I.D.	Date	Time	Matrix	No. of Containers	Observations/Comments										
ERH-EPP:030513	3-5-13	1711	Air	1	X	<input type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion <input type="checkbox"/> NWTPH-Dx - run acid wash/silica gel cleanup									
ERH-MED:030513	3-5-13	1700	Air	1	X	<input type="checkbox"/> run samples standardized to product									
ERH-INF:030513	3-5-13	1649	Air	1	X	<input type="checkbox"/> Analyze for EPH if no specific product identified									
<u>ERH-MED1:030513</u>															
Special Shipment/Handling or Storage Requirements					Method of Shipment										
<u>Report only PCE, TCE, + VC per Martin Valeri 3/6/13</u>					<input type="checkbox"/> Courier <input type="checkbox"/> Pick Up										
Relinquished by <u>Davan Brandt</u> Signature <u>Davan Brandt</u> Printed Name <u>Lander Associates</u> Company <u></u> Date <u>3-5-13</u> Time <u>1911</u>	Received by <u>Shawn Robeson</u> Signature <u>Shawn Robeson</u> Printed Name <u>ALS</u> Company <u></u> Date <u>3/6/13</u> Time <u>2:25</u>	Relinquished by  Signature  Printed Name  Company  Date _____ Time _____	Received by  Signature  Printed Name  Company  Date _____ Time _____												



April 1, 2013

Mr. Piper Roelen  
Landau Associates, Inc.  
130 - 2nd Ave. S.  
Edmonds, WA 98020

Dear Mr. Roelen,

On March 7th, 1 sample was received by our laboratory and assigned our laboratory project number EV13030038. The project was identified as your Heavens Supply / #583002.050.056. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

A handwritten signature in black ink that reads "Rick Bagan".

Rick Bagan  
Laboratory Director

Page 1

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## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030038  
Edmonds, WA 98020 ALS SAMPLE#: -01  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/7/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/6/2013 5:50:00 PM  
CLIENT SAMPLE ID VP-1 :030613 WDOE ACCREDITATION: C601

### DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	MG/M3	03/07/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	MG/M3	03/07/2013	GAP
Trichloroethylene	EPA-8260	<b>0.26</b>	0.0054	1	MG/M3	03/07/2013	GAP
Tetrachloroethylene	EPA-8260	<b>1.4</b>	0.0023	1	MG/M3	03/07/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>102</b>	03/07/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030038  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen  
CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY BLANK RESULTS

### MB-030513A - Batch 3546 - Air by EPA-8260

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	MG/M3	03/05/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	MG/M3	03/05/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	MG/M3	03/05/2013	GAP
Trichloroethene	EPA-8260	U	0.0054	1	MG/M3	03/05/2013	GAP
Toluene	EPA-8260	U	0.0015	1	MG/M3	03/05/2013	GAP
Tetrachloroethylene	EPA-8260	U	0.0023	1	MG/M3	03/05/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030038  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen

CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY CONTROL SAMPLE RESULTS

**ALS Test Batch ID: 3546 - Air by EPA-8260**

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	115			03/05/2013	GAP
1,1-Dichloroethene - BSD	EPA-8260	111	4		03/05/2013	GAP
Trichloroethene - BS	EPA-8260	113			03/05/2013	GAP
Trichloroethene - BSD	EPA-8260	114	1		03/05/2013	GAP
Toluene - BS	EPA-8260	113			03/05/2013	GAP
Toluene - BSD	EPA-8260	113	0		03/05/2013	GAP

APPROVED BY

A handwritten signature in black ink, appearing to read "Bob Bayon".

Laboratory Director

# ALS ENVIRONMENTAL

## Sample Receiving Checklist

Client: Landau Associates

ALS Job #: EV 13030038

Project: Heavens Supply / #583002.050.056

Received Date: 3/7/13 Received Time: 1:30 By: Sa

Type of shipping container: Cooler    Box X Other   

Shipped via: UPS/FedEx    US Postal Service    Courier    Hand Delivered X By Rick

Were custody seals on outside of sample? Yes X No    N/A   

If yes, how many? 1 Where? outside box

Custody seal date: 3/7/13 Seal name: Landau

Was Chain of Custody properly filled out (ink, signed, dated, etc.)? X      

Did all bottles have labels? X      

Did all bottle labels and tags agree with Chain of Custody? X      

Were samples received within hold time? X      

Did all bottles arrive in good condition (unbroken, etc.)? X      

Was sufficient amount of sample sent for the tests indicated? X      

Was correct preservation added to samples?       X

If no, Sample Control added preservative to the following:

<u>Sample Number</u>	<u>Reagent</u>	<u>Analyte</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Were VOA vials checked for absence of air bubbles?       X

Bubbles present in sample #: \_\_\_\_\_

Temperature of cooler upon receipt: Air Cold Cool Ambient N/A

Explain any discrepancies:  
\_\_\_\_\_  
\_\_\_\_\_

Was client contacted? \_\_\_\_\_ Who was called? \_\_\_\_\_ By whom? \_\_\_\_\_ Date: \_\_\_\_\_

Outcome of call:  
\_\_\_\_\_



- Seattle/Edmonds (425) 778-0907  
 Tacoma (253) 926-2493  
 Spokane (509) 327-9737  
 Portland (503) 542-1080

EV13030038

Date 3-7-13  
Page 1 of 1

## Chain-of-Custody Record

Project Name <u>Heavens Supply</u>		Project No. <u>583002.050.656</u>		Testing Parameters												Turnaround Time	
Project Location/Event <u>7009 Greenwood Ave N Seattle, WA</u>														<input checked="" type="checkbox"/> Standard			
Sampler's Name <u>Devan Brandt</u>														<input type="checkbox"/> Accelerated			
Project Contact <u>Piper Roelen</u>														<input type="checkbox"/>			
Send Results To <u>Piper Roelen, Anne Holverson, Martin Valeri</u>														Observations/Comments			
Sample I.D.	Date	Time	Matrix	No. of Containers													<input type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion
<u>VP-1 :030613</u>	<u>3-6-13</u>	<u>1750</u>	<u>Air</u>	<u>1</u>	<u>X</u>												<input type="checkbox"/> NWTPH-Dx - run acid wash/silica gel cleanup
																	<input type="checkbox"/> run samples standardized to product
																	<input type="checkbox"/> Analyze for EPH if no specific product identified
																	VOC/BTEX/VPH (soil): <input type="checkbox"/> non-preserved <input type="checkbox"/> preserved w/methanol <input type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt <input type="checkbox"/> Dissolved metal water samples field filtered
																	Other <u>8260c SIM</u> <u>PCE, TCE, cDCE, VC</u>
Special Shipment/Handling or Storage Requirements		Report <u>PCE, TCE, cDCE, VC</u>												Method of Shipment	<u>Courier Pick up</u>		
Relinquished by <u>Devan Brandt</u> Signature <u>Devan Brandt</u> Printed Name <u>Landau Associates</u> Company		Received by <u>J. Bagan</u> Signature <u>Rick Bagan</u> Printed Name <u>ALS</u> Company		Relinquished by Signature Printed Name Company		Received by Signature Printed Name Company											
Date <u>3-7-13</u> Time <u>918</u>		Date <u>3/7/13</u> Time <u>1:30</u>		Date _____ Time _____		Date _____ Time _____											



March 20, 2013

Mr. Piper Roelen  
Landau Associates, Inc.  
130 - 2nd Ave. S.  
Edmonds, WA 98020

Dear Mr. Roelen,

On March 15th, 10 samples were received by our laboratory and assigned our laboratory project number EV13030086. The project was identified as your Heavens Supply / #583002.050.056. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

A handwritten signature in black ink that reads "Rick Bagan".

Rick Bagan  
Laboratory Director

Page 1

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## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030086  
Edmonds, WA 98020 ALS SAMPLE#: -01  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/15/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/14/2013 2:14:00 PM  
CLIENT SAMPLE ID VMW-1:031413 WDOE ACCREDITATION: C601

### DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	ANALYSIS	
					UNITS	DATE BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/15/2013 GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/15/2013 GAP
Trichloroethene	EPA-8260	<b>0.085</b>	0.0054	1	UG/M3	03/15/2013 GAP
Tetrachloroethylene	EPA-8260	<b>1.6</b>	0.0023	1	UG/M3	03/15/2013 GAP

SURROGATE	METHOD	%REC	ANALYSIS		
			DATE	BY	
1,2-Dichloroethane-d4	EPA-8260	<b>82.0</b>			03/15/2013 GAP
4-Bromofluorobenzene	EPA-8260	<b>93.2</b>			03/15/2013 GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030086  
Edmonds, WA 98020 ALS SAMPLE#: -02  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/15/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/14/2013 3:00:00 PM  
CLIENT SAMPLE ID SMW-2:031413 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	<b>0.0057</b>	0.0031	1	UG/M3	03/15/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/15/2013	GAP
Trichloroethylene	EPA-8260	<b>0.063</b>	0.0054	1	UG/M3	03/15/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.30</b>	0.0023	1	UG/M3	03/15/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>80.9</b>	03/15/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>93.2</b>	03/15/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030086  
Edmonds, WA 98020 ALS SAMPLE#: -03  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/15/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/14/2013 2:41:00 PM  
CLIENT SAMPLE ID SMW-3:031413 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/15/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/15/2013	GAP
Trichloroethylene	EPA-8260	<b>0.057</b>	0.0054	1	UG/M3	03/15/2013	GAP
Tetrachloroethylene	EPA-8260	<b>1.6</b>	0.0023	1	UG/M3	03/15/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>84.9</b>	03/15/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>95.0</b>	03/15/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030086  
Edmonds, WA 98020 ALS SAMPLE#: -04  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/15/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/14/2013 2:28:00 PM  
CLIENT SAMPLE ID SMW-4:031413 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/15/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/15/2013	GAP
Trichloroethylene	EPA-8260	<b>0.056</b>	0.0054	1	UG/M3	03/15/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.52</b>	0.0023	1	UG/M3	03/15/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>83.9</b>	03/15/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>93.6</b>	03/15/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030086  
Edmonds, WA 98020 ALS SAMPLE#: -05  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/15/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/14/2013 1:48:00 PM  
CLIENT SAMPLE ID VMW-3:031413 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	<b>0.0078</b>	0.0031	1	UG/M3	03/15/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/15/2013	GAP
Trichloroethylene	EPA-8260	<b>0.091</b>	0.0054	1	UG/M3	03/15/2013	GAP
Tetrachloroethylene	EPA-8260	<b>1.3</b>	0.0023	1	UG/M3	03/15/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>81.0</b>	03/15/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>92.0</b>	03/15/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030086  
Edmonds, WA 98020 ALS SAMPLE#: -06  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/15/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/14/2013 1:33:00 PM  
CLIENT SAMPLE ID VMW-4:031413 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/15/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/15/2013	GAP
Trichloroethene	EPA-8260	<b>0.053</b>	0.0054	1	UG/M3	03/15/2013	GAP
Tetrachloroethylene	EPA-8260	<b>1.8</b>	0.0023	1	UG/M3	03/15/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>84.2</b>	03/15/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>92.2</b>	03/15/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030086  
 Edmonds, WA 98020 ALS SAMPLE#: -07  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/15/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/14/2013 12:42:00 PM  
 CLIENT SAMPLE ID ERH-EFF:031413 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	0.0094	1	UG/M3	03/15/2013	GAP
Chloromethane	EPA-8260	<b>0.22</b>	0.023	1	UG/M3	03/15/2013	GAP
Vinyl Chloride	EPA-8260	<b>0.033</b>	0.0031	1	UG/M3	03/15/2013	GAP
Bromomethane	EPA-8260	U	0.014	1	UG/M3	03/15/2013	GAP
Chloroethane	EPA-8260	U	0.012	1	UG/M3	03/15/2013	GAP
Carbon Tetrachloride	EPA-8260	U	0.0025	1	UG/M3	03/15/2013	GAP
Trichlorofluoromethane	EPA-8260	U	0.0045	1	UG/M3	03/15/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	UG/M3	03/15/2013	GAP
Methylene Chloride	EPA-8260	U	0.068	1	UG/M3	03/15/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	0.0097	1	UG/M3	03/15/2013	GAP
1,1-Dichloroethane	EPA-8260	U	0.0030	1	UG/M3	03/15/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	<b>0.020</b>	0.0068	1	UG/M3	03/15/2013	GAP
2,2-Dichloropropane	EPA-8260	U	0.0041	1	UG/M3	03/15/2013	GAP
Bromochloromethane	EPA-8260	U	0.011	1	UG/M3	03/15/2013	GAP
Chloroform	EPA-8260	<b>0.12</b>	0.014	1	UG/M3	03/15/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	0.0059	1	UG/M3	03/15/2013	GAP
1,1-Dichloropropene	EPA-8260	U	0.0067	1	UG/M3	03/15/2013	GAP
1,2-Dichloroethane	EPA-8260	U	0.0014	1	UG/M3	03/15/2013	GAP
Trichloroethene	EPA-8260	<b>0.028</b>	0.0054	1	UG/M3	03/15/2013	GAP
1,2-Dichloropropane	EPA-8260	U	0.0063	1	UG/M3	03/15/2013	GAP
Dibromomethane	EPA-8260	U	0.0071	1	UG/M3	03/15/2013	GAP
Bromodichloromethane	EPA-8260	U	0.0059	1	UG/M3	03/15/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	0.0058	1	UG/M3	03/15/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	0.0048	1	UG/M3	03/15/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	0.0052	1	UG/M3	03/15/2013	GAP
1,3-Dichloropropane	EPA-8260	U	0.0066	1	UG/M3	03/15/2013	GAP
Tetrachloroethylene	EPA-8260	U	0.0023	1	UG/M3	03/15/2013	GAP
Dibromochloromethane	EPA-8260	U	0.0074	1	UG/M3	03/15/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.0010	1	UG/M3	03/15/2013	GAP
Chlorobenzene	EPA-8260	U	0.0024	1	UG/M3	03/15/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	0.0087	1	UG/M3	03/15/2013	GAP
Bromoform	EPA-8260	U	0.0053	1	UG/M3	03/15/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	0.0029	1	UG/M3	03/15/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	0.0023	1	UG/M3	03/15/2013	GAP
Bromobenzene	EPA-8260	U	0.0041	1	UG/M3	03/15/2013	GAP
2-Chlorotoluene	EPA-8260	<b>0.017</b>	0.0032	1	UG/M3	03/15/2013	GAP
4-Chlorotoluene	EPA-8260	<b>0.012</b>	0.0040	1	UG/M3	03/15/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	0.0041	1	UG/M3	03/15/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030086  
Edmonds, WA 98020 ALS SAMPLE#: -07  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/15/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/14/2013 12:42:00 PM  
CLIENT SAMPLE ID ERH-EFF:031413 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8260	<b>0.012</b>	0.0045	1	UG/M3	03/15/2013	GAP
1,2-Dichlorobenzene	EPA-8260	<b>0.025</b>	0.0028	1	UG/M3	03/15/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	0.010	1	UG/M3	03/15/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	0.0047	1	UG/M3	03/15/2013	GAP
Hexachlorobutadiene	EPA-8260	U	0.0069	1	UG/M3	03/15/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	0.0045	1	UG/M3	03/15/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>80.6</b>	03/15/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>97.1</b>	03/15/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030086  
 Edmonds, WA 98020 ALS SAMPLE#: -08  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/15/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/14/2013 12:26:00 PM  
 CLIENT SAMPLE ID ERH-INF:031413 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	0.0094	1	UG/M3	03/15/2013	GAP
Chloromethane	EPA-8260	<b>0.24</b>	0.023	1	UG/M3	03/15/2013	GAP
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/15/2013	GAP
Bromomethane	EPA-8260	U	0.014	1	UG/M3	03/15/2013	GAP
Chloroethane	EPA-8260	U	0.012	1	UG/M3	03/15/2013	GAP
Carbon Tetrachloride	EPA-8260	U	0.0025	1	UG/M3	03/15/2013	GAP
Trichlorofluoromethane	EPA-8260	U	0.0045	1	UG/M3	03/15/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	UG/M3	03/15/2013	GAP
Methylene Chloride	EPA-8260	U	0.068	1	UG/M3	03/15/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	0.0097	1	UG/M3	03/15/2013	GAP
1,1-Dichloroethane	EPA-8260	U	0.0030	1	UG/M3	03/15/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	<b>0.080</b>	0.0068	1	UG/M3	03/15/2013	GAP
2,2-Dichloropropane	EPA-8260	U	0.0041	1	UG/M3	03/15/2013	GAP
Bromochloromethane	EPA-8260	<b>0.013</b>	0.011	1	UG/M3	03/15/2013	GAP
Chloroform	EPA-8260	<b>0.13</b>	0.014	1	UG/M3	03/15/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	0.0059	1	UG/M3	03/15/2013	GAP
1,1-Dichloropropene	EPA-8260	U	0.0067	1	UG/M3	03/15/2013	GAP
1,2-Dichloroethane	EPA-8260	U	0.0014	1	UG/M3	03/15/2013	GAP
Trichloroethene	EPA-8260	<b>0.079</b>	0.0054	1	UG/M3	03/15/2013	GAP
1,2-Dichloropropane	EPA-8260	U	0.0063	1	UG/M3	03/15/2013	GAP
Dibromomethane	EPA-8260	U	0.0071	1	UG/M3	03/15/2013	GAP
Bromodichloromethane	EPA-8260	U	0.0059	1	UG/M3	03/15/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	0.0058	1	UG/M3	03/15/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	0.0048	1	UG/M3	03/15/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	0.0052	1	UG/M3	03/15/2013	GAP
1,3-Dichloropropane	EPA-8260	U	0.0066	1	UG/M3	03/15/2013	GAP
Tetrachloroethylene	EPA-8260	<b>28</b>	0.23	10	UG/M3	03/15/2013	GAP
Dibromochloromethane	EPA-8260	U	0.0074	1	UG/M3	03/15/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.0010	1	UG/M3	03/15/2013	GAP
Chlorobenzene	EPA-8260	U	0.0024	1	UG/M3	03/15/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	0.0087	1	UG/M3	03/15/2013	GAP
Bromoform	EPA-8260	U	0.0053	1	UG/M3	03/15/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	0.0029	1	UG/M3	03/15/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	0.0023	1	UG/M3	03/15/2013	GAP
Bromobenzene	EPA-8260	U	0.0041	1	UG/M3	03/15/2013	GAP
2-Chlorotoluene	EPA-8260	U	0.0032	1	UG/M3	03/15/2013	GAP
4-Chlorotoluene	EPA-8260	U	0.0040	1	UG/M3	03/15/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	0.0041	1	UG/M3	03/15/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030086  
Edmonds, WA 98020 ALS SAMPLE#: -08  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/15/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/14/2013 12:26:00 PM  
CLIENT SAMPLE ID ERH-INF:031413 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8260	<b>0.013</b>	0.0045	1	UG/M3	03/15/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	0.0028	1	UG/M3	03/15/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	<b>0.050</b>	0.010	1	UG/M3	03/15/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	<b>0.023</b>	0.0047	1	UG/M3	03/15/2013	GAP
Hexachlorobutadiene	EPA-8260	U	0.0069	1	UG/M3	03/15/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	0.0045	1	UG/M3	03/15/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>87.6</b>	03/15/2013	GAP
1,2-Dichloroethane-d4 10X Dilution	EPA-8260	<b>83.9</b>	03/15/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>93.9</b>	03/15/2013	GAP
4-Bromofluorobenzene 10X Dilution	EPA-8260	<b>96.4</b>	03/15/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030086  
 Edmonds, WA 98020 ALS SAMPLE#: -09  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/15/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/14/2013 12:34:00 PM  
 CLIENT SAMPLE ID ERH-MID2:031413 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	0.0094	1	UG/M3	03/15/2013	GAP
Chloromethane	EPA-8260	<b>0.22</b>	0.023	1	UG/M3	03/15/2013	GAP
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/15/2013	GAP
Bromomethane	EPA-8260	U	0.014	1	UG/M3	03/15/2013	GAP
Chloroethane	EPA-8260	U	0.012	1	UG/M3	03/15/2013	GAP
Carbon Tetrachloride	EPA-8260	U	0.0025	1	UG/M3	03/15/2013	GAP
Trichlorofluoromethane	EPA-8260	U	0.0045	1	UG/M3	03/15/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	UG/M3	03/15/2013	GAP
Methylene Chloride	EPA-8260	U	0.068	1	UG/M3	03/15/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	0.0097	1	UG/M3	03/15/2013	GAP
1,1-Dichloroethane	EPA-8260	U	0.0030	1	UG/M3	03/15/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/15/2013	GAP
2,2-Dichloropropane	EPA-8260	U	0.0041	1	UG/M3	03/15/2013	GAP
Bromochloromethane	EPA-8260	U	0.011	1	UG/M3	03/15/2013	GAP
Chloroform	EPA-8260	<b>0.12</b>	0.014	1	UG/M3	03/15/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	0.0059	1	UG/M3	03/15/2013	GAP
1,1-Dichloropropene	EPA-8260	U	0.0067	1	UG/M3	03/15/2013	GAP
1,2-Dichloroethane	EPA-8260	U	0.0014	1	UG/M3	03/15/2013	GAP
Trichloroethene	EPA-8260	<b>0.025</b>	0.0054	1	UG/M3	03/15/2013	GAP
1,2-Dichloropropane	EPA-8260	U	0.0063	1	UG/M3	03/15/2013	GAP
Dibromomethane	EPA-8260	U	0.0071	1	UG/M3	03/15/2013	GAP
Bromodichloromethane	EPA-8260	U	0.0059	1	UG/M3	03/15/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	0.0058	1	UG/M3	03/15/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	0.0048	1	UG/M3	03/15/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	0.0052	1	UG/M3	03/15/2013	GAP
1,3-Dichloropropane	EPA-8260	U	0.0066	1	UG/M3	03/15/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.13</b>	0.0023	1	UG/M3	03/15/2013	GAP
Dibromochloromethane	EPA-8260	U	0.0074	1	UG/M3	03/15/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.0010	1	UG/M3	03/15/2013	GAP
Chlorobenzene	EPA-8260	U	0.0024	1	UG/M3	03/15/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	0.0087	1	UG/M3	03/15/2013	GAP
Bromoform	EPA-8260	U	0.0053	1	UG/M3	03/15/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	0.0029	1	UG/M3	03/15/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	0.0023	1	UG/M3	03/15/2013	GAP
Bromobenzene	EPA-8260	U	0.0041	1	UG/M3	03/15/2013	GAP
2-Chlorotoluene	EPA-8260	<b>0.017</b>	0.0032	1	UG/M3	03/15/2013	GAP
4-Chlorotoluene	EPA-8260	<b>0.0073</b>	0.0040	1	UG/M3	03/15/2013	GAP
1,3 Dichlorobenzene	EPA-8260	<b>0.017</b>	0.0041	1	UG/M3	03/15/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030086  
Edmonds, WA 98020 ALS SAMPLE#: -09  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/15/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/14/2013 12:34:00 PM  
CLIENT SAMPLE ID ERH-MID2:031413 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8260	U	0.0045	1	UG/M3	03/15/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	0.0028	1	UG/M3	03/15/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	0.010	1	UG/M3	03/15/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	0.0047	1	UG/M3	03/15/2013	GAP
Hexachlorobutadiene	EPA-8260	U	0.0069	1	UG/M3	03/15/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	0.0045	1	UG/M3	03/15/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	86.2	03/15/2013	GAP
4-Bromofluorobenzene	EPA-8260	94.3	03/15/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030086  
 Edmonds, WA 98020 ALS SAMPLE#: -10  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/15/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/14/2013 1:15:00 PM  
 CLIENT SAMPLE ID SVE-North:031413 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	0.0094	1	UG/M3	03/15/2013	GAP
Chloromethane	EPA-8260	<b>0.21</b>	0.023	1	UG/M3	03/15/2013	GAP
Vinyl Chloride	EPA-8260	<b>0.0054</b>	0.0031	1	UG/M3	03/15/2013	GAP
Bromomethane	EPA-8260	U	0.014	1	UG/M3	03/15/2013	GAP
Chloroethane	EPA-8260	U	0.012	1	UG/M3	03/15/2013	GAP
Carbon Tetrachloride	EPA-8260	U	0.0025	1	UG/M3	03/15/2013	GAP
Trichlorofluoromethane	EPA-8260	U	0.0045	1	UG/M3	03/15/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	UG/M3	03/15/2013	GAP
Methylene Chloride	EPA-8260	U	0.068	1	UG/M3	03/15/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	0.0097	1	UG/M3	03/15/2013	GAP
1,1-Dichloroethane	EPA-8260	U	0.0030	1	UG/M3	03/15/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/15/2013	GAP
2,2-Dichloropropane	EPA-8260	U	0.0041	1	UG/M3	03/15/2013	GAP
Bromochloromethane	EPA-8260	U	0.011	1	UG/M3	03/15/2013	GAP
Chloroform	EPA-8260	<b>0.12</b>	0.014	1	UG/M3	03/15/2013	GAP
1,1,1-Trichloroethane	EPA-8260	<b>0.019</b>	0.0059	1	UG/M3	03/15/2013	GAP
1,1-Dichloropropene	EPA-8260	U	0.0067	1	UG/M3	03/15/2013	GAP
1,2-Dichloroethane	EPA-8260	U	0.0014	1	UG/M3	03/15/2013	GAP
Trichloroethene	EPA-8260	<b>0.021</b>	0.0054	1	UG/M3	03/15/2013	GAP
1,2-Dichloropropane	EPA-8260	U	0.0063	1	UG/M3	03/15/2013	GAP
Dibromomethane	EPA-8260	U	0.0071	1	UG/M3	03/15/2013	GAP
Bromodichloromethane	EPA-8260	U	0.0059	1	UG/M3	03/15/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	0.0058	1	UG/M3	03/15/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	0.0048	1	UG/M3	03/15/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	0.0052	1	UG/M3	03/15/2013	GAP
1,3-Dichloropropane	EPA-8260	U	0.0066	1	UG/M3	03/15/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.40</b>	0.0023	1	UG/M3	03/15/2013	GAP
Dibromochloromethane	EPA-8260	U	0.0074	1	UG/M3	03/15/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.0010	1	UG/M3	03/15/2013	GAP
Chlorobenzene	EPA-8260	U	0.0024	1	UG/M3	03/15/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	0.0087	1	UG/M3	03/15/2013	GAP
Bromoform	EPA-8260	U	0.0053	1	UG/M3	03/15/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	0.0029	1	UG/M3	03/15/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	0.0023	1	UG/M3	03/15/2013	GAP
Bromobenzene	EPA-8260	U	0.0041	1	UG/M3	03/15/2013	GAP
2-Chlorotoluene	EPA-8260	<b>0.013</b>	0.0032	1	UG/M3	03/15/2013	GAP
4-Chlorotoluene	EPA-8260	<b>0.0092</b>	0.0040	1	UG/M3	03/15/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	0.0041	1	UG/M3	03/15/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030086  
Edmonds, WA 98020 ALS SAMPLE#: -10  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/15/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/14/2013 1:15:00 PM  
CLIENT SAMPLE ID SVE-North:031413 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8260	U	0.0045	1	UG/M3	03/15/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	0.0028	1	UG/M3	03/15/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	<b>0.012</b>	0.010	1	UG/M3	03/15/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	0.0047	1	UG/M3	03/15/2013	GAP
Hexachlorobutadiene	EPA-8260	U	0.0069	1	UG/M3	03/15/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	0.0045	1	UG/M3	03/15/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>87.1</b>	03/15/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>94.3</b>	03/15/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

**CLIENT:** Landau Associates, Inc. **DATE:** 3/20/2013  
 130 - 2nd Ave. S. **ALS SDG#:** EV13030086  
 Edmonds, WA 98020 **WDOE ACCREDITATION:** C601  
**CLIENT CONTACT:** Piper Roelen  
**CLIENT PROJECT:** Heavens Supply / #583002.050.056

**LABORATORY BLANK RESULTS**
**MB-031513A - Batch 3568 - Air by EPA-8260**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	0.0094	1	UG/M3	03/15/2013	GAP
Chloromethane	EPA-8260	U	0.023	1	UG/M3	03/15/2013	GAP
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/15/2013	GAP
Bromomethane	EPA-8260	U	0.014	1	UG/M3	03/15/2013	GAP
Chloroethane	EPA-8260	U	0.012	1	UG/M3	03/15/2013	GAP
Carbon Tetrachloride	EPA-8260	U	0.0025	1	UG/M3	03/15/2013	GAP
Trichlorofluoromethane	EPA-8260	U	0.0045	1	UG/M3	03/15/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	UG/M3	03/15/2013	GAP
Methylene Chloride	EPA-8260	U	0.068	1	UG/M3	03/15/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	0.0097	1	UG/M3	03/15/2013	GAP
1,1-Dichloroethane	EPA-8260	U	0.0030	1	UG/M3	03/15/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/15/2013	GAP
2,2-Dichloropropane	EPA-8260	U	0.0041	1	UG/M3	03/15/2013	GAP
Bromochloromethane	EPA-8260	U	0.011	1	UG/M3	03/15/2013	GAP
Chloroform	EPA-8260	U	0.014	1	UG/M3	03/15/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	0.0059	1	UG/M3	03/15/2013	GAP
1,1-Dichloropropene	EPA-8260	U	0.0067	1	UG/M3	03/15/2013	GAP
1,2-Dichloroethane	EPA-8260	U	0.0014	1	UG/M3	03/15/2013	GAP
Trichloroethene	EPA-8260	U	0.0054	1	UG/M3	03/15/2013	GAP
1,2-Dichloropropane	EPA-8260	U	0.0063	1	UG/M3	03/15/2013	GAP
Dibromomethane	EPA-8260	U	0.0071	1	UG/M3	03/15/2013	GAP
Bromodichloromethane	EPA-8260	U	0.0059	1	UG/M3	03/15/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	0.0058	1	UG/M3	03/15/2013	GAP
Toluene	EPA-8260	U	0.0015	1	UG/M3	03/15/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	0.0048	1	UG/M3	03/15/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	0.0052	1	UG/M3	03/15/2013	GAP
1,3-Dichloropropane	EPA-8260	U	0.0066	1	UG/M3	03/15/2013	GAP
Tetrachloroethylene	EPA-8260	U	0.0023	1	UG/M3	03/15/2013	GAP
Dibromochloromethane	EPA-8260	U	0.0074	1	UG/M3	03/15/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.0010	1	UG/M3	03/15/2013	GAP
Chlorobenzene	EPA-8260	U	0.0024	1	UG/M3	03/15/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	0.0087	1	UG/M3	03/15/2013	GAP
Bromoform	EPA-8260	U	0.0053	1	UG/M3	03/15/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	0.0029	1	UG/M3	03/15/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	0.0023	1	UG/M3	03/15/2013	GAP
Bromobenzene	EPA-8260	U	0.0041	1	UG/M3	03/15/2013	GAP
2-Chlorotoluene	EPA-8260	U	0.0032	1	UG/M3	03/15/2013	GAP
4-Chlorotoluene	EPA-8260	U	0.0040	1	UG/M3	03/15/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030086  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen

CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY BLANK RESULTS

### MB-031513A - Batch 3568 - Air by EPA-8260

1,3 Dichlorobenzene	EPA-8260	U	0.0041	1	UG/M3	03/15/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	0.0045	1	UG/M3	03/15/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	0.0028	1	UG/M3	03/15/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	0.010	1	UG/M3	03/15/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	0.0047	1	UG/M3	03/15/2013	GAP
Hexachlorobutadiene	EPA-8260	U	0.0069	1	UG/M3	03/15/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	0.0045	1	UG/M3	03/15/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/20/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030086  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen

CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY CONTROL SAMPLE RESULTS

**ALS Test Batch ID: 3568 - Air by EPA-8260**

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	120			03/15/2013	GAP
1,1-Dichloroethene - BSD	EPA-8260	112	7		03/15/2013	GAP
Trichloroethene - BS	EPA-8260	93.7			03/15/2013	GAP
Trichloroethene - BSD	EPA-8260	89.3	5		03/15/2013	GAP
Toluene - BS	EPA-8260	101			03/15/2013	GAP
Toluene - BSD	EPA-8260	96.4	4		03/15/2013	GAP
Chlorobenzene - BS	EPA-8260	100			03/15/2013	GAP
Chlorobenzene - BSD	EPA-8260	98.2	2		03/15/2013	GAP

APPROVED BY

A handwritten signature in black ink, appearing to read "Bob Bayar".

Laboratory Director

# ALS ENVIRONMENTAL

## Sample Receiving Checklist

Client: Landau Associates

ALS Job #: EV/3030086

Project: Heavens Supply / #583002.Q0.056

Received Date: 3/15/13 Received Time: 8:30 By: SL

Type of shipping container: Cooler  Box  Other  By Rick

Shipped via: UPS/FedEx  US Postal Service  Courier  Hand Delivered

Were custody seals on outside of sample? Yes  No  N/A

If yes, how many? 1 Where? outside box

Custody seal date: 3/14/13 Seal name: Landau

Was Chain of Custody properly filled out (ink, signed, dated, etc.)?

Did all bottles have labels?

Did all bottle labels and tags agree with Chain of Custody?

Were samples received within hold time?

Did all bottles arrive in good condition (unbroken, etc.)?

Was sufficient amount of sample sent for the tests indicated?

Was correct preservation added to samples?

If no, Sample Control added preservative to the following:

<u>Sample Number</u>	<u>Reagent</u>	<u>Analyte</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Were VOA vials checked for absence of air bubbles?

Bubbles present in sample #: \_\_\_\_\_

\_\_\_\_\_

Temperature of cooler upon receipt: Air

Cold  Cool  Ambient  N/A

Explain any discrepancies: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Was client contacted? \_\_\_\_\_ Who was called? \_\_\_\_\_ By whom? \_\_\_\_\_ Date: \_\_\_\_\_

Outcome of call: \_\_\_\_\_  
\_\_\_\_\_



Seattle/Edmonds (425) 778-0907  
 Tacoma (253) 926-2493  
 Spokane (509) 327-9737  
 Portland (503) 542-1080

EV13030086

Date 3-14-13

Page 1 of 1

## Chain-of-Custody Record

Project Name <u>Heaven Supply</u> Project No. <u>583002.050.056</u> Project Location/Event <u>Seattle, WA</u> Sampler's Name <u>Devan Brandt</u> Project Contact <u>Piper Roeten</u> Send Results To <u>Piper Roeten, Anne Halverson, Martin Valeri</u>				<b>Testing Parameters</b>  No. of Containers				Turnaround Time <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Accelerated <input type="checkbox"/> 3 Day			
Sample I.D.	Date	Time	Matrix	No. of Containers	Observations/Comments						
					VOCs	BTEX	DCF	STN			
1 VMW-1:031413	3-14-13	1114	Air	1	X						<u>Allow water samples to settle, collect aliquot from clear portion</u>
2 SMW-2:031413	3-14-13	1500	Air	1	X						<u>NWTPH-Dx - run acid wash/silica gel cleanup</u>
3 SMW-3:031413	3-14-13	1441	Air	1	X						<u>run samples standardized to product</u>
4 SMW-4:031413	3-14-13	1428	Air	1	X						<u>Analyze for EPH if no specific product identified</u>
5 VMW-3:031413	3-14-13	1348	Air	1	X						<u>VOC/BTEX/VPH (soil):</u>
6 VMW-4:031413	3-14-13	1333	Air	1	X						<u>non-preserved</u>
SVE-North:031413	3-14-13	1315	Air	1	X						<u>preserved w/methanol</u>
											<u>preserved w/sodium bisulfate</u>
											<u>Freeze upon receipt</u>
											<u>Dissolved metal water samples field filtered</u>
											<u>Other</u>
Special Shipment/Handling or Storage Requirements					Method of Shipment						
<b>Relinquished by</b>  Signature: <u>Devan Brandt</u> Printed Name: <u>Landau Associates</u> Company		<b>Received by</b>  Signature: <u>Rick Bagam</u> Printed Name: <u>ALS</u> Company		<b>Relinquished by</b> Signature Printed Name Company		<b>Received by</b> Signature Printed Name Company					
Date 3-14-13 Time		Date 3/15/13 Time 8:00		Date _____ Time _____		Date _____ Time _____					



March 22, 2013

Mr. Piper Roelen  
Landau Associates, Inc.  
130 - 2nd Ave. S.  
Edmonds, WA 98020

Dear Mr. Roelen,

On March 20th, 11 samples were received by our laboratory and assigned our laboratory project number EV13030119. The project was identified as your Heavens Supply / #583002.050.056. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

A handwritten signature in black ink that reads "Rick Bagan".

Rick Bagan  
Laboratory Director

Page 1

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626

ALS Laboratory Group A Campbell Brothers Limited Company

Environmental

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030119  
Edmonds, WA 98020 ALS SAMPLE#: -01  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/20/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/19/2013 11:07:00 AM  
CLIENT SAMPLE ID: SMW-2:031913 WDOE ACCREDITATION: C601

### DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/21/2013	GAP
Trichloroethylene	EPA-8260	<b>0.14</b>	0.0054	1	UG/M3	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.33</b>	0.0023	1	UG/M3	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>74.3</b>	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030119  
Edmonds, WA 98020 ALS SAMPLE#: -02  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/20/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/19/2013 11:33:00 AM  
CLIENT SAMPLE ID VMW-4:031913 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/21/2013	GAP
Trichloroethylene	EPA-8260	<b>0.075</b>	0.0054	1	UG/M3	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.64</b>	0.0023	1	UG/M3	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>75.4</b>	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030119  
Edmonds, WA 98020 ALS SAMPLE#: -03  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/20/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/19/2013 11:54:00 AM  
CLIENT SAMPLE ID VMW-3:031913 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	<b>0.0046</b>	0.0031	1	UG/M3	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/21/2013	GAP
Trichloroethylene	EPA-8260	<b>0.13</b>	0.0054	1	UG/M3	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	<b>1.4</b>	0.0023	1	UG/M3	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>79.9</b>	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030119  
Edmonds, WA 98020 ALS SAMPLE#: -04  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/20/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/19/2013 12:09:00 PM  
CLIENT SAMPLE ID VMW-2:031913 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/21/2013	GAP
Trichloroethylene	EPA-8260	<b>0.063</b>	0.0054	1	UG/M3	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.11</b>	0.0023	1	UG/M3	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>75.0</b>	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030119  
Edmonds, WA 98020 ALS SAMPLE#: -05  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/20/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/19/2013 12:41:00 PM  
CLIENT SAMPLE ID SMW-3:031913 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/21/2013	GAP
Trichloroethylene	EPA-8260	<b>0.067</b>	0.0054	1	UG/M3	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	<b>1.4</b>	0.0023	1	UG/M3	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>75.1</b>	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030119  
Edmonds, WA 98020 ALS SAMPLE#: -06  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/20/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/19/2013 1:02:00 PM  
CLIENT SAMPLE ID SMW-4:031913 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/21/2013	GAP
Trichloroethylene	EPA-8260	<b>0.052</b>	0.0054	1	UG/M3	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.40</b>	0.0023	1	UG/M3	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>78.3</b>	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030119  
Edmonds, WA 98020 ALS SAMPLE#: -07  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/20/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/19/2013 1:24:00 PM  
CLIENT SAMPLE ID VMW-1:031913 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/21/2013	GAP
Trichloroethylene	EPA-8260	<b>0.055</b>	0.0054	1	UG/M3	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.36</b>	0.0023	1	UG/M3	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>82.9</b>	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030119  
 Edmonds, WA 98020 ALS SAMPLE#: -08  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/20/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/19/2013 1:37:00 PM  
 CLIENT SAMPLE ID SVE-North:031913 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	0.0094	1	UG/M3	03/21/2013	GAP
Chloromethane	EPA-8260	U	0.023	1	UG/M3	03/21/2013	GAP
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/21/2013	GAP
Bromomethane	EPA-8260	U	0.014	1	UG/M3	03/21/2013	GAP
Chloroethane	EPA-8260	U	0.012	1	UG/M3	03/21/2013	GAP
Carbon Tetrachloride	EPA-8260	U	0.0025	1	UG/M3	03/21/2013	GAP
Trichlorofluoromethane	EPA-8260	U	0.0045	1	UG/M3	03/21/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	UG/M3	03/21/2013	GAP
Methylene Chloride	EPA-8260	U	0.068	1	UG/M3	03/21/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	0.0097	1	UG/M3	03/21/2013	GAP
1,1-Dichloroethane	EPA-8260	U	0.0030	1	UG/M3	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/21/2013	GAP
2,2-Dichloropropane	EPA-8260	U	0.0041	1	UG/M3	03/21/2013	GAP
Bromochloromethane	EPA-8260	U	0.011	1	UG/M3	03/21/2013	GAP
Chloroform	EPA-8260	<b>0.13</b>	0.014	1	UG/M3	03/21/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	0.0059	1	UG/M3	03/21/2013	GAP
1,1-Dichloropropene	EPA-8260	U	0.0067	1	UG/M3	03/21/2013	GAP
1,2-Dichloroethane	EPA-8260	U	0.0014	1	UG/M3	03/21/2013	GAP
Trichloroethene	EPA-8260	<b>0.068</b>	0.0054	1	UG/M3	03/21/2013	GAP
1,2-Dichloropropane	EPA-8260	U	0.0063	1	UG/M3	03/21/2013	GAP
Dibromomethane	EPA-8260	U	0.0071	1	UG/M3	03/21/2013	GAP
Bromodichloromethane	EPA-8260	U	0.0059	1	UG/M3	03/21/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	0.0058	1	UG/M3	03/21/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	0.0048	1	UG/M3	03/21/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	0.0052	1	UG/M3	03/21/2013	GAP
1,3-Dichloropropane	EPA-8260	U	0.0066	1	UG/M3	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	<b>1.7</b>	0.0023	1	UG/M3	03/21/2013	GAP
Dibromochloromethane	EPA-8260	U	0.0074	1	UG/M3	03/21/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.0010	1	UG/M3	03/21/2013	GAP
Chlorobenzene	EPA-8260	U	0.0024	1	UG/M3	03/21/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	0.0087	1	UG/M3	03/21/2013	GAP
Bromoform	EPA-8260	U	0.0053	1	UG/M3	03/21/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	0.0029	1	UG/M3	03/21/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	0.0023	1	UG/M3	03/21/2013	GAP
Bromobenzene	EPA-8260	U	0.0041	1	UG/M3	03/21/2013	GAP
2-Chlorotoluene	EPA-8260	<b>0.019</b>	0.0032	1	UG/M3	03/21/2013	GAP
4-Chlorotoluene	EPA-8260	U	0.0040	1	UG/M3	03/21/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	0.0041	1	UG/M3	03/21/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030119  
Edmonds, WA 98020 ALS SAMPLE#: -08  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/20/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/19/2013 1:37:00 PM  
CLIENT SAMPLE ID SVE-North:031913 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8260	<b>0.0089</b>	0.0045	1	UG/M3	03/21/2013	GAP
1,2-Dichlorobenzene	EPA-8260	<b>0.021</b>	0.0028	1	UG/M3	03/21/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	0.010	1	UG/M3	03/21/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	0.0047	1	UG/M3	03/21/2013	GAP
Hexachlorobutadiene	EPA-8260	U	0.0069	1	UG/M3	03/21/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	<b>0.0063</b>	0.0045	1	UG/M3	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>77.7</b>	03/21/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>95.9</b>	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030119  
 Edmonds, WA 98020 ALS SAMPLE#: -09  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/20/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/19/2013 1:56:00 PM  
 CLIENT SAMPLE ID ERH-EFF:031913 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	0.0094	1	UG/M3	03/21/2013	GAP
Chloromethane	EPA-8260	U	0.023	1	UG/M3	03/21/2013	GAP
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/21/2013	GAP
Bromomethane	EPA-8260	U	0.014	1	UG/M3	03/21/2013	GAP
Chloroethane	EPA-8260	U	0.012	1	UG/M3	03/21/2013	GAP
Carbon Tetrachloride	EPA-8260	U	0.0025	1	UG/M3	03/21/2013	GAP
Trichlorofluoromethane	EPA-8260	U	0.0045	1	UG/M3	03/21/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	UG/M3	03/21/2013	GAP
Methylene Chloride	EPA-8260	U	0.068	1	UG/M3	03/21/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	0.0097	1	UG/M3	03/21/2013	GAP
1,1-Dichloroethane	EPA-8260	U	0.0030	1	UG/M3	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	<b>0.10</b>	0.0068	1	UG/M3	03/21/2013	GAP
2,2-Dichloropropane	EPA-8260	U	0.0041	1	UG/M3	03/21/2013	GAP
Bromochloromethane	EPA-8260	U	0.011	1	UG/M3	03/21/2013	GAP
Chloroform	EPA-8260	<b>0.13</b>	0.014	1	UG/M3	03/21/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	0.0059	1	UG/M3	03/21/2013	GAP
1,1-Dichloropropene	EPA-8260	U	0.0067	1	UG/M3	03/21/2013	GAP
1,2-Dichloroethane	EPA-8260	U	0.0014	1	UG/M3	03/21/2013	GAP
Trichloroethene	EPA-8260	<b>0.078</b>	0.0054	1	UG/M3	03/21/2013	GAP
1,2-Dichloropropane	EPA-8260	U	0.0063	1	UG/M3	03/21/2013	GAP
Dibromomethane	EPA-8260	U	0.0071	1	UG/M3	03/21/2013	GAP
Bromodichloromethane	EPA-8260	U	0.0059	1	UG/M3	03/21/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	0.0058	1	UG/M3	03/21/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	0.0048	1	UG/M3	03/21/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	0.0052	1	UG/M3	03/21/2013	GAP
1,3-Dichloropropane	EPA-8260	U	0.0066	1	UG/M3	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.10</b>	0.0023	1	UG/M3	03/21/2013	GAP
Dibromochloromethane	EPA-8260	U	0.0074	1	UG/M3	03/21/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.0010	1	UG/M3	03/21/2013	GAP
Chlorobenzene	EPA-8260	U	0.0024	1	UG/M3	03/21/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	0.0087	1	UG/M3	03/21/2013	GAP
Bromoform	EPA-8260	U	0.0053	1	UG/M3	03/21/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	0.0029	1	UG/M3	03/21/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	0.0023	1	UG/M3	03/21/2013	GAP
Bromobenzene	EPA-8260	U	0.0041	1	UG/M3	03/21/2013	GAP
2-Chlorotoluene	EPA-8260	<b>0.021</b>	0.0032	1	UG/M3	03/21/2013	GAP
4-Chlorotoluene	EPA-8260	U	0.0040	1	UG/M3	03/21/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	0.0041	1	UG/M3	03/21/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030119  
Edmonds, WA 98020 ALS SAMPLE#: -09  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/20/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/19/2013 1:56:00 PM  
CLIENT SAMPLE ID ERH-EFF:031913 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8260	U	0.0045	1	UG/M3	03/21/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	0.0028	1	UG/M3	03/21/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	0.010	1	UG/M3	03/21/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	<b>0.026</b>	0.0047	1	UG/M3	03/21/2013	GAP
Hexachlorobutadiene	EPA-8260	U	0.0069	1	UG/M3	03/21/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	0.0045	1	UG/M3	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>76.5</b>	03/21/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>97.2</b>	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030119  
 Edmonds, WA 98020 ALS SAMPLE#: -10  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/20/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/19/2013 2:01:00 PM  
 CLIENT SAMPLE ID ERH-MID2:031913 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	0.0094	1	UG/M3	03/21/2013	GAP
Chloromethane	EPA-8260	U	0.023	1	UG/M3	03/21/2013	GAP
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/21/2013	GAP
Bromomethane	EPA-8260	U	0.014	1	UG/M3	03/21/2013	GAP
Chloroethane	EPA-8260	U	0.012	1	UG/M3	03/21/2013	GAP
Carbon Tetrachloride	EPA-8260	U	0.0025	1	UG/M3	03/21/2013	GAP
Trichlorofluoromethane	EPA-8260	U	0.0045	1	UG/M3	03/21/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	UG/M3	03/21/2013	GAP
Methylene Chloride	EPA-8260	U	0.068	1	UG/M3	03/21/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	0.0097	1	UG/M3	03/21/2013	GAP
1,1-Dichloroethane	EPA-8260	U	0.0030	1	UG/M3	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/21/2013	GAP
2,2-Dichloropropane	EPA-8260	U	0.0041	1	UG/M3	03/21/2013	GAP
Bromochloromethane	EPA-8260	U	0.011	1	UG/M3	03/21/2013	GAP
Chloroform	EPA-8260	<b>0.17</b>	0.014	1	UG/M3	03/21/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	0.0059	1	UG/M3	03/21/2013	GAP
1,1-Dichloropropene	EPA-8260	U	0.0067	1	UG/M3	03/21/2013	GAP
1,2-Dichloroethane	EPA-8260	U	0.0014	1	UG/M3	03/21/2013	GAP
Trichloroethene	EPA-8260	<b>0.067</b>	0.0054	1	UG/M3	03/21/2013	GAP
1,2-Dichloropropane	EPA-8260	U	0.0063	1	UG/M3	03/21/2013	GAP
Dibromomethane	EPA-8260	U	0.0071	1	UG/M3	03/21/2013	GAP
Bromodichloromethane	EPA-8260	U	0.0059	1	UG/M3	03/21/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	0.0058	1	UG/M3	03/21/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	0.0048	1	UG/M3	03/21/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	0.0052	1	UG/M3	03/21/2013	GAP
1,3-Dichloropropane	EPA-8260	U	0.0066	1	UG/M3	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	U	0.0023	1	UG/M3	03/21/2013	GAP
Dibromochloromethane	EPA-8260	U	0.0074	1	UG/M3	03/21/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.0010	1	UG/M3	03/21/2013	GAP
Chlorobenzene	EPA-8260	U	0.0024	1	UG/M3	03/21/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	0.0087	1	UG/M3	03/21/2013	GAP
Bromoform	EPA-8260	U	0.0053	1	UG/M3	03/21/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	0.0029	1	UG/M3	03/21/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	0.0023	1	UG/M3	03/21/2013	GAP
Bromobenzene	EPA-8260	U	0.0041	1	UG/M3	03/21/2013	GAP
2-Chlorotoluene	EPA-8260	U	0.0032	1	UG/M3	03/21/2013	GAP
4-Chlorotoluene	EPA-8260	U	0.0040	1	UG/M3	03/21/2013	GAP
1,3 Dichlorobenzene	EPA-8260	<b>0.0083</b>	0.0041	1	UG/M3	03/21/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030119  
Edmonds, WA 98020 ALS SAMPLE#: -10  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/20/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/19/2013 2:01:00 PM  
CLIENT SAMPLE ID ERH-MID2:031913 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8260	<b>0.0086</b>	0.0045	1	UG/M3	03/21/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	0.0028	1	UG/M3	03/21/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	0.010	1	UG/M3	03/21/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	0.0047	1	UG/M3	03/21/2013	GAP
Hexachlorobutadiene	EPA-8260	U	0.0069	1	UG/M3	03/21/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	0.0045	1	UG/M3	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>76.9</b>	03/21/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>94.0</b>	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030119  
 Edmonds, WA 98020 ALS SAMPLE#: -11  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/20/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/19/2013 2:07:00 PM  
 CLIENT SAMPLE ID ERH-INF:031913 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	0.0094	1	UG/M3	03/21/2013	GAP
Chloromethane	EPA-8260	U	0.023	1	UG/M3	03/21/2013	GAP
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/21/2013	GAP
Bromomethane	EPA-8260	U	0.014	1	UG/M3	03/21/2013	GAP
Chloroethane	EPA-8260	U	0.012	1	UG/M3	03/21/2013	GAP
Carbon Tetrachloride	EPA-8260	U	0.0025	1	UG/M3	03/21/2013	GAP
Trichlorofluoromethane	EPA-8260	<b>0.021</b>	0.0045	1	UG/M3	03/21/2013	GAP
1,1-Dichloroethene	EPA-8260	<b>0.051</b>	0.0014	1	UG/M3	03/21/2013	GAP
Methylene Chloride	EPA-8260	U	0.068	1	UG/M3	03/21/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	<b>0.12</b>	0.0097	1	UG/M3	03/21/2013	GAP
1,1-Dichloroethane	EPA-8260	U	0.0030	1	UG/M3	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	<b>0.081</b>	0.0068	1	UG/M3	03/21/2013	GAP
2,2-Dichloropropane	EPA-8260	U	0.0041	1	UG/M3	03/21/2013	GAP
Bromochloromethane	EPA-8260	U	0.011	1	UG/M3	03/21/2013	GAP
Chloroform	EPA-8260	<b>0.15</b>	0.014	1	UG/M3	03/21/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	0.0059	1	UG/M3	03/21/2013	GAP
1,1-Dichloropropene	EPA-8260	U	0.0067	1	UG/M3	03/21/2013	GAP
1,2-Dichloroethane	EPA-8260	U	0.0014	1	UG/M3	03/21/2013	GAP
Trichloroethene	EPA-8260	<b>0.43</b>	0.0054	1	UG/M3	03/21/2013	GAP
1,2-Dichloropropane	EPA-8260	U	0.0063	1	UG/M3	03/21/2013	GAP
Dibromomethane	EPA-8260	U	0.0071	1	UG/M3	03/21/2013	GAP
Bromodichloromethane	EPA-8260	U	0.0059	1	UG/M3	03/21/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	0.0058	1	UG/M3	03/21/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	0.0048	1	UG/M3	03/21/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	0.0052	1	UG/M3	03/21/2013	GAP
1,3-Dichloropropane	EPA-8260	U	0.0066	1	UG/M3	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	<b>120</b>	0.058	25	UG/M3	03/22/2013	GAP
Dibromochloromethane	EPA-8260	U	0.0074	1	UG/M3	03/21/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.0010	1	UG/M3	03/21/2013	GAP
Chlorobenzene	EPA-8260	U	0.0024	1	UG/M3	03/21/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	0.0087	1	UG/M3	03/21/2013	GAP
Bromoform	EPA-8260	U	0.0053	1	UG/M3	03/21/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	0.0029	1	UG/M3	03/21/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	0.0023	1	UG/M3	03/21/2013	GAP
Bromobenzene	EPA-8260	U	0.0041	1	UG/M3	03/21/2013	GAP
2-Chlorotoluene	EPA-8260	U	0.0032	1	UG/M3	03/21/2013	GAP
4-Chlorotoluene	EPA-8260	<b>0.011</b>	0.0040	1	UG/M3	03/21/2013	GAP
1,3 Dichlorobenzene	EPA-8260	<b>0.011</b>	0.0041	1	UG/M3	03/21/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030119  
Edmonds, WA 98020 ALS SAMPLE#: -11  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/20/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/19/2013 2:07:00 PM  
CLIENT SAMPLE ID ERH-INF:031913 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8260	<b>0.011</b>	0.0045	1	UG/M3	03/21/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	0.0028	1	UG/M3	03/21/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	<b>0.32</b>	0.010	1	UG/M3	03/21/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	0.0047	1	UG/M3	03/21/2013	GAP
Hexachlorobutadiene	EPA-8260	<b>0.036</b>	0.0069	1	UG/M3	03/21/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	0.0045	1	UG/M3	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>79.9</b>	03/21/2013	GAP
1,2-Dichloroethane-d4 25X Dilution	EPA-8260	<b>76.2</b>	03/22/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>98.6</b>	03/21/2013	GAP
4-Bromofluorobenzene 25X Dilution	EPA-8260	<b>95.8</b>	03/22/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

**CLIENT:** Landau Associates, Inc. **DATE:** 3/22/2013  
 130 - 2nd Ave. S. **ALS SDG#:** EV13030119  
 Edmonds, WA 98020 **WDOE ACCREDITATION:** C601  
**CLIENT CONTACT:** Piper Roelen  
**CLIENT PROJECT:** Heavens Supply / #583002.050.056

**LABORATORY BLANK RESULTS**
**MB-032113A - Batch 3582 - Air by EPA-8260**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	0.0094	1	UG/M3	03/21/2013	GAP
Chloromethane	EPA-8260	U	0.023	1	UG/M3	03/21/2013	GAP
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/21/2013	GAP
Bromomethane	EPA-8260	U	0.014	1	UG/M3	03/21/2013	GAP
Chloroethane	EPA-8260	U	0.012	1	UG/M3	03/21/2013	GAP
Carbon Tetrachloride	EPA-8260	U	0.0025	1	UG/M3	03/21/2013	GAP
Trichlorofluoromethane	EPA-8260	U	0.0045	1	UG/M3	03/21/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	UG/M3	03/21/2013	GAP
Methylene Chloride	EPA-8260	U	0.068	1	UG/M3	03/21/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	0.0097	1	UG/M3	03/21/2013	GAP
1,1-Dichloroethane	EPA-8260	U	0.0030	1	UG/M3	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/21/2013	GAP
2,2-Dichloropropane	EPA-8260	U	0.0041	1	UG/M3	03/21/2013	GAP
Bromochloromethane	EPA-8260	U	0.011	1	UG/M3	03/21/2013	GAP
Chloroform	EPA-8260	U	0.014	1	UG/M3	03/21/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	0.0059	1	UG/M3	03/21/2013	GAP
1,1-Dichloropropene	EPA-8260	U	0.0067	1	UG/M3	03/21/2013	GAP
1,2-Dichloroethane	EPA-8260	U	0.0014	1	UG/M3	03/21/2013	GAP
Trichloroethene	EPA-8260	U	0.0054	1	UG/M3	03/21/2013	GAP
1,2-Dichloropropane	EPA-8260	U	0.0063	1	UG/M3	03/21/2013	GAP
Dibromomethane	EPA-8260	U	0.0071	1	UG/M3	03/21/2013	GAP
Bromodichloromethane	EPA-8260	U	0.0059	1	UG/M3	03/21/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	0.0058	1	UG/M3	03/21/2013	GAP
Toluene	EPA-8260	U	0.0015	1	UG/M3	03/21/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	0.0048	1	UG/M3	03/21/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	0.0052	1	UG/M3	03/21/2013	GAP
1,3-Dichloropropane	EPA-8260	U	0.0066	1	UG/M3	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	U	0.0023	1	UG/M3	03/21/2013	GAP
Dibromochloromethane	EPA-8260	U	0.0074	1	UG/M3	03/21/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.0010	1	UG/M3	03/21/2013	GAP
Chlorobenzene	EPA-8260	U	0.0024	1	UG/M3	03/21/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	0.0087	1	UG/M3	03/21/2013	GAP
Bromoform	EPA-8260	U	0.0053	1	UG/M3	03/21/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	0.0029	1	UG/M3	03/21/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	0.0023	1	UG/M3	03/21/2013	GAP
Bromobenzene	EPA-8260	U	0.0041	1	UG/M3	03/21/2013	GAP
2-Chlorotoluene	EPA-8260	U	0.0032	1	UG/M3	03/21/2013	GAP
4-Chlorotoluene	EPA-8260	U	0.0040	1	UG/M3	03/21/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030119  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen

CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY BLANK RESULTS

### MB-032113A - Batch 3582 - Air by EPA-8260

1,3 Dichlorobenzene	EPA-8260	U	0.0041	1	UG/M3	03/21/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	0.0045	1	UG/M3	03/21/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	0.0028	1	UG/M3	03/21/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	0.010	1	UG/M3	03/21/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	0.0047	1	UG/M3	03/21/2013	GAP
Hexachlorobutadiene	EPA-8260	U	0.0069	1	UG/M3	03/21/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	0.0045	1	UG/M3	03/21/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030119  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen

CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY CONTROL SAMPLE RESULTS

**ALS Test Batch ID: 3582 - Air by EPA-8260**

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	102			03/21/2013	GAP
1,1-Dichloroethene - BSD	EPA-8260	97.5	4		03/21/2013	GAP
Trichloroethene - BS	EPA-8260	104			03/21/2013	GAP
Trichloroethene - BSD	EPA-8260	101	3		03/21/2013	GAP
Toluene - BS	EPA-8260	116			03/21/2013	GAP
Toluene - BSD	EPA-8260	111	4		03/21/2013	GAP
Chlorobenzene - BS	EPA-8260	105			03/21/2013	GAP
Chlorobenzene - BSD	EPA-8260	101	4		03/21/2013	GAP

APPROVED BY

A handwritten signature in black ink, appearing to read "Bob Bayar".

Laboratory Director

# ALS ENVIRONMENTAL

## Sample Receiving Checklist

Client: Landau Associates ALS Job #: EV13030119

Project: A Hevers Supply 583002.050.056

Received Date: 3/20/13 Received Time: 2:45 PM By: HAP

Type of shipping container: Cooler  Box  Other

Shipped via: UPS/FedEx  US Postal Service  Courier  Hand Delivered

Were custody seals on outside of sample?  Yes  No  N/A  
If yes, how many? 1 Where? Top of Box

Custody seal date: 3/20/13 Seal name: Devon Brandt  
Landau

Was Chain of Custody properly filled out (ink, signed, dated, etc.)?

Did all bottles have labels?

Did all bottle labels and tags agree with Chain of Custody?

Were samples received within hold time?

Did all bottles arrive in good condition (unbroken, etc.)?

Was sufficient amount of sample sent for the tests indicated?

Was correct preservation added to samples?

If no, Sample Control added preservative to the following:

<u>Sample Number</u>	<u>Reagent</u>	<u>Analyte</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Were VOA vials checked for absence of air bubbles?

Bubbles present in sample #: \_\_\_\_\_

Temperature of cooler upon receipt: \_\_\_\_\_ Cold Cool Ambient  N/A

Explain any discrepancies:  
\_\_\_\_\_  
\_\_\_\_\_

Was client contacted? \_\_\_\_\_ Who was called? \_\_\_\_\_ By whom? \_\_\_\_\_ Date: \_\_\_\_\_

Outcome of call: \_\_\_\_\_



**LANDAU  
ASSOCIATES**

- Seattle/Edmonds** (425) 778-0907
- Tacoma** (253) 926-2493
- Spokane** (509) 327-9737
- Portland** (503) 542-1080
-

EV13030119

Date 3-19-13

## **Chain-of-Custody Record**

Project Name Heavens Supply Project No. 583002.050, 056

Project Location/Event Seattle, WA

Sampler's Name Devan Brandt

Project Contact Piper Roelen

Send Results To Piger Reelen, Anne Haltvorsen, Martin Valteri

## Testing Parameters

### Turnaround Time

- Standard  
 Accelerated  
 3 Day

**Special Shipment/Handling  
or Storage Requirements**

Pick at Landau

### Method of Shipment

**Relinquished by**  
Dawn Brandt  
Signature  
**Dawn Brandt**  
Printed Name  
**Landau Associates**  
Company

Received by  
Elly Perry  
Signature  
Elly Perry  
Printed Name  
ALS  
Company

**Relinquished by**

---

Signature

---

Printed Name

---

Company

---

Date	Time
------	------

<b>Received by</b>	<input type="text"/>
<b>Signature</b>	<input type="text"/>
<b>Printed Name</b>	<input type="text"/>
<b>Company</b>	<input type="text"/>
<b>Date</b>	<input type="text"/>
<b>Time</b>	<input type="text"/>



March 22, 2013

Mr. Piper Roelen  
Landau Associates, Inc.  
130 - 2nd Ave. S.  
Edmonds, WA 98020

Dear Mr. Roelen,

On March 21st, 1 sample was received by our laboratory and assigned our laboratory project number EV13030128. The project was identified as your Heavens Supply / #583002.050.056. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

A handwritten signature in black ink that reads "Rick Bagan".

Rick Bagan  
Laboratory Director

Page 1

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626

ALS Laboratory Group A Campbell Brothers Limited Company

Environmental

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030128  
Edmonds, WA 98020 ALS SAMPLE#: -01  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/21/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/20/2013 5:39:00 PM  
CLIENT SAMPLE ID VP-1:032013 WDOE ACCREDITATION: C601

### DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/22/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/22/2013	GAP
Trichloroethene	EPA-8260	<b>0.062</b>	0.0054	1	UG/M3	03/22/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.12</b>	0.0023	1	UG/M3	03/22/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>74.6</b>	03/22/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030128  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen  
CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY BLANK RESULTS

### MB-032113A - Batch 3582 - Air by EPA-8260

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	UG/M3	03/21/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	UG/M3	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	UG/M3	03/21/2013	GAP
Trichloroethene	EPA-8260	U	0.0054	1	UG/M3	03/21/2013	GAP
Toluene	EPA-8260	U	0.0015	1	UG/M3	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	U	0.0023	1	UG/M3	03/21/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/22/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030128  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen

CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY CONTROL SAMPLE RESULTS

**ALS Test Batch ID: 3582 - Air by EPA-8260**

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	102			03/21/2013	GAP
1,1-Dichloroethene - BSD	EPA-8260	97.5	4		03/21/2013	GAP
Trichloroethene - BS	EPA-8260	104			03/21/2013	GAP
Trichloroethene - BSD	EPA-8260	101	3		03/21/2013	GAP
Toluene - BS	EPA-8260	116			03/21/2013	GAP
Toluene - BSD	EPA-8260	111	4		03/21/2013	GAP

APPROVED BY

A handwritten signature in black ink, appearing to read "Bob Bayon".

Laboratory Director

# ALS ENVIRONMENTAL

## Sample Receiving Checklist

Client: Landau Associates

ALS Job #: EV/3030128

Project: Heavens Supply / #583002.050.056

Received Date: 3/21/13 Received Time: 2:15 By: Sm

Type of shipping container: Cooler X Box   Other  

Shipped via: UPS/FedEx   US Postal Service   Courier   Hand Delivered X By Click

<u>Yes</u>	<u>No</u>	<u>N/A</u>
<u>X</u>		

Were custody seals on outside of sample?

If yes, how many? 1 Where? outside cooler

Custody seal date: 3/21/13 Seal name: Landau

Was Chain of Custody properly filled out (ink, signed, dated, etc.)?

X    

Did all bottles have labels?

X    

Did all bottle labels and tags agree with Chain of Custody?

X    

Were samples received within hold time?

X    

Did all bottles arrive in good condition (unbroken, etc.)?

X    

Was sufficient amount of sample sent for the tests indicated?

X    

Was correct preservation added to samples?

    X

If no, Sample Control added preservative to the following:

<u>Sample Number</u>	<u>Reagent</u>	<u>Analyte</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Were VOA vials checked for absence of air bubbles?

    X

Bubbles present in sample #: \_\_\_\_\_

Temperature of cooler upon receipt: Air

Cold   Cool   Ambient   N/A

Explain any discrepancies:  
\_\_\_\_\_  
\_\_\_\_\_

Was client contacted? \_\_\_\_\_ Who was called? \_\_\_\_\_ By whom? \_\_\_\_\_ Date: \_\_\_\_\_

Outcome of call: \_\_\_\_\_





March 29, 2013

Mr. Piper Roelen  
Landau Associates, Inc.  
130 - 2nd Ave. S.  
Edmonds, WA 98020

Dear Mr. Roelen,

On March 27th, 8 samples were received by our laboratory and assigned our laboratory project number EV13030151. The project was identified as your Heavens Supply / #583002.050.056. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

A handwritten signature in black ink that reads "Rick Bagan".

Rick Bagan  
Laboratory Director

Page 1

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## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/29/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030151  
Edmonds, WA 98020 ALS SAMPLE#: -01  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/27/2013 10:03:00 AM  
CLIENT SAMPLE ID VMW-1:032713 WDOE ACCREDITATION: C601

### DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	MG/M3	03/28/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	MG/M3	03/28/2013	GAP
Trichloroethene	EPA-8260	<b>0.29</b>	0.0054	1	MG/M3	03/28/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.52</b>	0.0023	1	MG/M3	03/28/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>89.6</b>	03/28/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



### CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/29/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030151  
Edmonds, WA 98020 ALS SAMPLE#: -02  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/27/2013 10:20:00 AM  
CLIENT SAMPLE ID SMW-4:032713 WDOE ACCREDITATION: C601

### DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	MG/M3	03/28/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	MG/M3	03/28/2013	GAP
Trichloroethylene	EPA-8260	<b>0.23</b>	0.0054	1	MG/M3	03/28/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.49</b>	0.0023	1	MG/M3	03/28/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>89.5</b>	03/28/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/29/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030151  
Edmonds, WA 98020 ALS SAMPLE#: -03  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/27/2013 10:37:00 AM  
CLIENT SAMPLE ID SMW-3:032713 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	MG/M3	03/28/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	MG/M3	03/28/2013	GAP
Trichloroethylene	EPA-8260	<b>0.21</b>	0.0054	1	MG/M3	03/28/2013	GAP
Tetrachloroethylene	EPA-8260	<b>1.8</b>	0.0023	1	MG/M3	03/28/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>92.2</b>	03/28/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/29/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030151  
Edmonds, WA 98020 ALS SAMPLE#: -04  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/27/2013 10:54:00 AM  
CLIENT SAMPLE ID SMW-2:032713 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	MG/M3	03/28/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	MG/M3	03/28/2013	GAP
Trichloroethylene	EPA-8260	<b>0.20</b>	0.0054	1	MG/M3	03/28/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.40</b>	0.0023	1	MG/M3	03/28/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>94.8</b>	03/28/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/29/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030151  
Edmonds, WA 98020 ALS SAMPLE#: -05  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/27/2013 11:17:00 AM  
CLIENT SAMPLE ID VMW-4:032713 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	MG/M3	03/28/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	MG/M3	03/28/2013	GAP
Trichloroethylene	EPA-8260	<b>0.20</b>	0.0054	1	MG/M3	03/28/2013	GAP
Tetrachloroethylene	EPA-8260	<b>1.5</b>	0.0023	1	MG/M3	03/28/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>92.8</b>	03/28/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/29/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030151  
Edmonds, WA 98020 ALS SAMPLE#: -06  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/27/2013 11:29:00 AM  
CLIENT SAMPLE ID VMW-3:032713 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	MG/M3	03/28/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	MG/M3	03/28/2013	GAP
Trichloroethylene	EPA-8260	<b>0.24</b>	0.0054	1	MG/M3	03/28/2013	GAP
Tetrachloroethylene	EPA-8260	<b>1.4</b>	0.0023	1	MG/M3	03/28/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>93.8</b>	03/28/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/29/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030151  
Edmonds, WA 98020 ALS SAMPLE#: -07  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/27/2013 11:43:00 AM  
CLIENT SAMPLE ID VMW-2:032713 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	MG/M3	03/28/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	MG/M3	03/28/2013	GAP
Trichloroethylene	EPA-8260	<b>0.20</b>	0.0054	1	MG/M3	03/28/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.27</b>	0.0023	1	MG/M3	03/28/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>96.7</b>	03/28/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/29/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030151  
Edmonds, WA 98020 ALS SAMPLE#: -08  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/26/2013 5:42:00 PM  
CLIENT SAMPLE ID VP-1:032613 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	MG/M3	03/28/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	MG/M3	03/28/2013	GAP
Trichloroethylene	EPA-8260	<b>0.20</b>	0.0054	1	MG/M3	03/28/2013	GAP
Tetrachloroethylene	EPA-8260	<b>0.26</b>	0.0023	1	MG/M3	03/28/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>92.3</b>	03/28/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/29/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030151  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen  
CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY BLANK RESULTS

### MB-032613A - Batch 3593 - Air by EPA-8260

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	DATE	ANALYSIS BY
Vinyl Chloride	EPA-8260	U	0.0031	1	MG/M3	03/26/2013	GAP
1,1-Dichloroethene	EPA-8260	U	0.0014	1	MG/M3	03/26/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	0.0068	1	MG/M3	03/26/2013	GAP
Trichloroethene	EPA-8260	U	0.0054	1	MG/M3	03/26/2013	GAP
Toluene	EPA-8260	U	0.0015	1	MG/M3	03/26/2013	GAP
Tetrachloroethylene	EPA-8260	U	0.0023	1	MG/M3	03/26/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/29/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030151  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen

CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY CONTROL SAMPLE RESULTS

**ALS Test Batch ID: 3593 - Air by EPA-8260**

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	93.7			03/26/2013	GAP
1,1-Dichloroethene - BSD	EPA-8260	91.7	2		03/26/2013	GAP
Trichloroethene - BS	EPA-8260	92.6			03/26/2013	GAP
Trichloroethene - BSD	EPA-8260	89.4	3		03/26/2013	GAP
Toluene - BS	EPA-8260	89.1			03/26/2013	GAP
Toluene - BSD	EPA-8260	88.1	1		03/26/2013	GAP

APPROVED BY

A handwritten signature in black ink, appearing to read "Bob Bayon".

Laboratory Director

# ALS ENVIRONMENTAL

## Sample Receiving Checklist

Client: Landau Associates

ALS Job #: EV13030151

Project: Heavens Supply / #583002.050.056

Received Date: 3/27/13 Received Time: 4:50 By: Sm

Type of shipping container: Cooler    Box X Other   

Shipped via: UPS/FedEx    US Postal Service    Courier    Hand Delivered X By Pick

Were custody seals on outside of sample?

If yes, how many? 1 Where? outside box

Custody seal date: 3/27/13 Seal name: Landau

<u>Yes</u>	<u>No</u>	<u>N/A</u>
<u>X</u>		

Was Chain of Custody properly filled out (ink, signed, dated, etc.)?

X      

Did all bottles have labels?

X      

Did all bottle labels and tags agree with Chain of Custody?

X      

Were samples received within hold time?

X      

Did all bottles arrive in good condition (unbroken, etc.)?

X      

Was sufficient amount of sample sent for the tests indicated?

X      

Was correct preservation added to samples?

      X

If no, Sample Control added preservative to the following:

<u>Sample Number</u>	<u>Reagent</u>	<u>Analyte</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Were VOA vials checked for absence of air bubbles?

      X

Bubbles present in sample #: \_\_\_\_\_

Temperature of cooler upon receipt: Air - N/A Cold Cool Ambient N/A

Explain any discrepancies:

\_\_\_\_\_  
\_\_\_\_\_

Was client contacted? \_\_\_\_\_ Who was called? \_\_\_\_\_ By whom? \_\_\_\_\_ Date: \_\_\_\_\_

Outcome of call: \_\_\_\_\_  
\_\_\_\_\_



Seattle/Edmonds (425) 778-0907

- Tacoma** (253) 926-2493
- Spokane** (509) 327-9737
- Portland** (503) 542-1080
-

EV13030151

Date 3-27-13  
Page 1 of 1

## **Chain-of-Custody Record**

Project Name Heaven Supply Project No. 583002.050, 056

Project Location/Event Seattle, WA

Sampler's Name Deyan Brandt

Project Contact Piper Roppon

Send Results To Piper Roelen, AnneHansson, Martin Valeri

**Special Shipment/Handling  
or Storage Requirements**

Method of  
Shipment *Courier Pickup*

**Relinquished by**  
Devan Brandt  
Signature  
**Devan Brandt**  
Printed Name  
Landau Associates  
Company  
Date 3-27-13 Time 1433

Received by  
Shawn Robinson  
Signature  
Shawn Robinson  
Printed Name  
ALS  
Company  
3/27/13 Time 4:50  
Date

<b>Relinquished by</b>	<hr/>
<b>Signature</b>	<hr/>
<b>Printed Name</b>	<hr/>
<b>Company</b>	<hr/>
<b>Date</b> _____	<b>Time</b> _____

<b>Received by</b>	
Signature	<hr/>
Printed Name	<hr/>
Company	<hr/>
Date	Time



April 1, 2013

Mr. Piper Roelen  
Landau Associates, Inc.  
130 - 2nd Ave. S.  
Edmonds, WA 98020

Dear Mr. Roelen,

On March 27th, 4 samples were received by our laboratory and assigned our laboratory project number EV13030152. The project was identified as your Heavens Supply / #583002.050.056. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

A handwritten signature in black ink that reads "Rick Bagan".

Rick Bagan  
Laboratory Director

Page 1

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## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030152  
Edmonds, WA 98020 ALS SAMPLE#: -01  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/27/2013 12:05:00 PM  
CLIENT SAMPLE ID: ERH-INF:032713 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	9.4	1	UG/M3	03/28/2013	GAP
Chloromethane	EPA-8260	U	23	1	UG/M3	03/28/2013	GAP
Vinyl Chloride	EPA-8260	U	3.1	1	UG/M3	03/28/2013	GAP
Bromomethane	EPA-8260	U	14	1	UG/M3	03/28/2013	GAP
Chloroethane	EPA-8260	U	12	1	UG/M3	03/28/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.5	1	UG/M3	03/28/2013	GAP
Trichlorofluoromethane	EPA-8260	U	4.5	1	UG/M3	03/28/2013	GAP
1,1-Dichloroethene	EPA-8260	U	1.4	1	UG/M3	03/28/2013	GAP
Methylene Chloride	EPA-8260	U	68	1	UG/M3	03/28/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	9.7	1	UG/M3	03/28/2013	GAP
1,1-Dichloroethane	EPA-8260	U	3.0	1	UG/M3	03/28/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	69	6.8	1	UG/M3	03/28/2013	GAP
2,2-Dichloropropane	EPA-8260	U	4.1	1	UG/M3	03/28/2013	GAP
Bromoform	EPA-8260	U	11	1	UG/M3	03/28/2013	GAP
Chloroform	EPA-8260	160	14	1	UG/M3	03/28/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	5.9	1	UG/M3	03/28/2013	GAP
1,1-Dichloropropene	EPA-8260	U	6.7	1	UG/M3	03/28/2013	GAP
1,2-Dichloroethane	EPA-8260	U	1.4	1	UG/M3	03/28/2013	GAP
Trichloroethene	EPA-8260	390	5.4	1	UG/M3	03/28/2013	GAP
1,2-Dichloropropane	EPA-8260	U	6.3	1	UG/M3	03/28/2013	GAP
Dibromomethane	EPA-8260	U	7.1	1	UG/M3	03/28/2013	GAP
Bromodichloromethane	EPA-8260	U	5.9	1	UG/M3	03/28/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	5.8	1	UG/M3	03/28/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	4.8	1	UG/M3	03/28/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	5.2	1	UG/M3	03/28/2013	GAP
1,3-Dichloropropane	EPA-8260	U	6.6	1	UG/M3	03/28/2013	GAP
Tetrachloroethylene	EPA-8260	110000	23	10	UG/M3	03/28/2013	GAP
Dibromochloromethane	EPA-8260	U	7.4	1	UG/M3	03/28/2013	GAP
1,2-Dibromoethane	EPA-8260	U	1.0	1	UG/M3	03/28/2013	GAP
Chlorobenzene	EPA-8260	U	2.4	1	UG/M3	03/28/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	8.7	1	UG/M3	03/28/2013	GAP
Bromoform	EPA-8260	U	5.3	1	UG/M3	03/28/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.9	1	UG/M3	03/28/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.3	1	UG/M3	03/28/2013	GAP
Bromobenzene	EPA-8260	U	4.1	1	UG/M3	03/28/2013	GAP
2-Chlorotoluene	EPA-8260	12	3.2	1	UG/M3	03/28/2013	GAP
4-Chlorotoluene	EPA-8260	U	4.0	1	UG/M3	03/28/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	4.1	1	UG/M3	03/28/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030152  
Edmonds, WA 98020 ALS SAMPLE#: -01  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/27/2013 12:05:00 PM  
CLIENT SAMPLE ID ERH-INF:032713 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8260	12	4.5	1	UG/M3	03/28/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.8	1	UG/M3	03/28/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/M3	03/28/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	14	4.7	1	UG/M3	03/28/2013	GAP
Hexachlorobutadiene	EPA-8260	35	6.9	1	UG/M3	03/28/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	4.5	1	UG/M3	03/28/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	96.4	03/28/2013	GAP
1,2-Dichloroethane-d4 10X Dilution	EPA-8260	94.7	03/28/2013	GAP
4-Bromofluorobenzene	EPA-8260	106	03/28/2013	GAP
4-Bromofluorobenzene 10X Dilution	EPA-8260	106	03/28/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030152  
 Edmonds, WA 98020 ALS SAMPLE#: -02  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/27/2013 12:08:00 PM  
 CLIENT SAMPLE ID ERH-MID2:032713 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	9.4	1	UG/M3	03/28/2013	GAP
Chloromethane	EPA-8260	U	23	1	UG/M3	03/28/2013	GAP
Vinyl Chloride	EPA-8260	U	3.1	1	UG/M3	03/28/2013	GAP
Bromomethane	EPA-8260	U	14	1	UG/M3	03/28/2013	GAP
Chloroethane	EPA-8260	U	12	1	UG/M3	03/28/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.5	1	UG/M3	03/28/2013	GAP
Trichlorofluoromethane	EPA-8260	U	4.5	1	UG/M3	03/28/2013	GAP
1,1-Dichloroethene	EPA-8260	U	1.4	1	UG/M3	03/28/2013	GAP
Methylene Chloride	EPA-8260	<b>780</b>	68	1	UG/M3	03/28/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	9.7	1	UG/M3	03/28/2013	GAP
1,1-Dichloroethane	EPA-8260	U	3.0	1	UG/M3	03/28/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	6.8	1	UG/M3	03/28/2013	GAP
2,2-Dichloropropane	EPA-8260	U	4.1	1	UG/M3	03/28/2013	GAP
Bromochloromethane	EPA-8260	U	11	1	UG/M3	03/28/2013	GAP
Chloroform	EPA-8260	<b>120</b>	14	1	UG/M3	03/28/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	5.9	1	UG/M3	03/28/2013	GAP
1,1-Dichloropropene	EPA-8260	U	6.7	1	UG/M3	03/28/2013	GAP
1,2-Dichloroethane	EPA-8260	U	1.4	1	UG/M3	03/28/2013	GAP
Trichloroethene	EPA-8260	<b>230</b>	5.4	1	UG/M3	03/28/2013	GAP
1,2-Dichloropropane	EPA-8260	U	6.3	1	UG/M3	03/28/2013	GAP
Dibromomethane	EPA-8260	U	7.1	1	UG/M3	03/28/2013	GAP
Bromodichloromethane	EPA-8260	U	5.9	1	UG/M3	03/28/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	5.8	1	UG/M3	03/28/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	4.8	1	UG/M3	03/28/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	5.2	1	UG/M3	03/28/2013	GAP
1,3-Dichloropropane	EPA-8260	U	6.6	1	UG/M3	03/28/2013	GAP
Tetrachloroethylene	EPA-8260	<b>310</b>	2.3	1	UG/M3	03/28/2013	GAP
Dibromochloromethane	EPA-8260	U	7.4	1	UG/M3	03/28/2013	GAP
1,2-Dibromoethane	EPA-8260	U	1.0	1	UG/M3	03/28/2013	GAP
Chlorobenzene	EPA-8260	U	2.4	1	UG/M3	03/28/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	8.7	1	UG/M3	03/28/2013	GAP
Bromoform	EPA-8260	U	5.3	1	UG/M3	03/28/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.9	1	UG/M3	03/28/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.3	1	UG/M3	03/28/2013	GAP
Bromobenzene	EPA-8260	U	4.1	1	UG/M3	03/28/2013	GAP
2-Chlorotoluene	EPA-8260	U	3.2	1	UG/M3	03/28/2013	GAP
4-Chlorotoluene	EPA-8260	U	4.0	1	UG/M3	03/28/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	4.1	1	UG/M3	03/28/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030152  
Edmonds, WA 98020 ALS SAMPLE#: -02  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/27/2013 12:08:00 PM  
CLIENT SAMPLE ID ERH-MID2:032713 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8260	U	4.5	1	UG/M3	03/28/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.8	1	UG/M3	03/28/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/M3	03/28/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	4.7	1	UG/M3	03/28/2013	GAP
Hexachlorobutadiene	EPA-8260	U	6.9	1	UG/M3	03/28/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	<b>29</b>	4.5	1	UG/M3	03/28/2013	GAP
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	<b>95.5</b>				03/28/2013	GAP
4-Bromofluorobenzene	EPA-8260	<b>103</b>				03/28/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030152  
 Edmonds, WA 98020 ALS SAMPLE#: -03  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/27/2013 12:11:00 PM  
 CLIENT SAMPLE ID ERH-EFF:032713 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	9.4	1	UG/M3	03/28/2013	GAP
Chloromethane	EPA-8260	U	23	1	UG/M3	03/28/2013	GAP
Vinyl Chloride	EPA-8260	U	3.1	1	UG/M3	03/28/2013	GAP
Bromomethane	EPA-8260	U	14	1	UG/M3	03/28/2013	GAP
Chloroethane	EPA-8260	U	12	1	UG/M3	03/28/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.5	1	UG/M3	03/28/2013	GAP
Trichlorofluoromethane	EPA-8260	U	4.5	1	UG/M3	03/28/2013	GAP
1,1-Dichloroethene	EPA-8260	U	1.4	1	UG/M3	03/28/2013	GAP
Methylene Chloride	EPA-8260	<b>230</b>	68	1	UG/M3	03/28/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	9.7	1	UG/M3	03/28/2013	GAP
1,1-Dichloroethane	EPA-8260	U	3.0	1	UG/M3	03/28/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	6.8	1	UG/M3	03/28/2013	GAP
2,2-Dichloropropane	EPA-8260	U	4.1	1	UG/M3	03/28/2013	GAP
Bromochloromethane	EPA-8260	U	11	1	UG/M3	03/28/2013	GAP
Chloroform	EPA-8260	<b>140</b>	14	1	UG/M3	03/28/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	5.9	1	UG/M3	03/28/2013	GAP
1,1-Dichloropropene	EPA-8260	U	6.7	1	UG/M3	03/28/2013	GAP
1,2-Dichloroethane	EPA-8260	U	1.4	1	UG/M3	03/28/2013	GAP
Trichloroethene	EPA-8260	<b>200</b>	5.4	1	UG/M3	03/28/2013	GAP
1,2-Dichloropropane	EPA-8260	U	6.3	1	UG/M3	03/28/2013	GAP
Dibromomethane	EPA-8260	U	7.1	1	UG/M3	03/28/2013	GAP
Bromodichloromethane	EPA-8260	U	5.9	1	UG/M3	03/28/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	5.8	1	UG/M3	03/28/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	4.8	1	UG/M3	03/28/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	5.2	1	UG/M3	03/28/2013	GAP
1,3-Dichloropropane	EPA-8260	U	6.6	1	UG/M3	03/28/2013	GAP
Tetrachloroethylene	EPA-8260	<b>330</b>	2.3	1	UG/M3	03/28/2013	GAP
Dibromochloromethane	EPA-8260	U	7.4	1	UG/M3	03/28/2013	GAP
1,2-Dibromoethane	EPA-8260	U	1.0	1	UG/M3	03/28/2013	GAP
Chlorobenzene	EPA-8260	U	2.4	1	UG/M3	03/28/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	8.7	1	UG/M3	03/28/2013	GAP
Bromoform	EPA-8260	U	5.3	1	UG/M3	03/28/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.9	1	UG/M3	03/28/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.3	1	UG/M3	03/28/2013	GAP
Bromobenzene	EPA-8260	U	4.1	1	UG/M3	03/28/2013	GAP
2-Chlorotoluene	EPA-8260	U	3.2	1	UG/M3	03/28/2013	GAP
4-Chlorotoluene	EPA-8260	U	4.0	1	UG/M3	03/28/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	4.1	1	UG/M3	03/28/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030152  
Edmonds, WA 98020 ALS SAMPLE#: -03  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/27/2013 12:11:00 PM  
CLIENT SAMPLE ID ERH-EFF:032713 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8260	17	4.5	1	UG/M3	03/28/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.8	1	UG/M3	03/28/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/M3	03/28/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	4.7	1	UG/M3	03/28/2013	GAP
Hexachlorobutadiene	EPA-8260	U	6.9	1	UG/M3	03/28/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	4.5	1	UG/M3	03/28/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	97.9	03/28/2013	GAP
4-Bromofluorobenzene	EPA-8260	104	03/28/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030152  
 Edmonds, WA 98020 ALS SAMPLE#: -04  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/27/2013 12:37:00 PM  
 CLIENT SAMPLE ID SVE-North:032713 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	9.4	1	UG/M3	03/28/2013	GAP
Chloromethane	EPA-8260	U	23	1	UG/M3	03/28/2013	GAP
Vinyl Chloride	EPA-8260	U	3.1	1	UG/M3	03/28/2013	GAP
Bromomethane	EPA-8260	U	14	1	UG/M3	03/28/2013	GAP
Chloroethane	EPA-8260	U	12	1	UG/M3	03/28/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.5	1	UG/M3	03/28/2013	GAP
Trichlorofluoromethane	EPA-8260	U	4.5	1	UG/M3	03/28/2013	GAP
1,1-Dichloroethene	EPA-8260	U	1.4	1	UG/M3	03/28/2013	GAP
Methylene Chloride	EPA-8260	<b>250</b>	68	1	UG/M3	03/28/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	9.7	1	UG/M3	03/28/2013	GAP
1,1-Dichloroethane	EPA-8260	U	3.0	1	UG/M3	03/28/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	6.8	1	UG/M3	03/28/2013	GAP
2,2-Dichloropropane	EPA-8260	U	4.1	1	UG/M3	03/28/2013	GAP
Bromochloromethane	EPA-8260	U	11	1	UG/M3	03/28/2013	GAP
Chloroform	EPA-8260	<b>140</b>	14	1	UG/M3	03/28/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	5.9	1	UG/M3	03/28/2013	GAP
1,1-Dichloropropene	EPA-8260	U	6.7	1	UG/M3	03/28/2013	GAP
1,2-Dichloroethane	EPA-8260	U	1.4	1	UG/M3	03/28/2013	GAP
Trichloroethene	EPA-8260	<b>200</b>	5.4	1	UG/M3	03/28/2013	GAP
1,2-Dichloropropane	EPA-8260	U	6.3	1	UG/M3	03/28/2013	GAP
Dibromomethane	EPA-8260	U	7.1	1	UG/M3	03/28/2013	GAP
Bromodichloromethane	EPA-8260	U	5.9	1	UG/M3	03/28/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	5.8	1	UG/M3	03/28/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	4.8	1	UG/M3	03/28/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	5.2	1	UG/M3	03/28/2013	GAP
1,3-Dichloropropane	EPA-8260	U	6.6	1	UG/M3	03/28/2013	GAP
Tetrachloroethylene	EPA-8260	<b>5300</b>	2.3	1	UG/M3	03/28/2013	GAP
Dibromochloromethane	EPA-8260	U	7.4	1	UG/M3	03/28/2013	GAP
1,2-Dibromoethane	EPA-8260	U	1.0	1	UG/M3	03/28/2013	GAP
Chlorobenzene	EPA-8260	U	2.4	1	UG/M3	03/28/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	8.7	1	UG/M3	03/28/2013	GAP
Bromoform	EPA-8260	U	5.3	1	UG/M3	03/28/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.9	1	UG/M3	03/28/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.3	1	UG/M3	03/28/2013	GAP
Bromobenzene	EPA-8260	<b>24</b>	4.1	1	UG/M3	03/28/2013	GAP
2-Chlorotoluene	EPA-8260	U	3.2	1	UG/M3	03/28/2013	GAP
4-Chlorotoluene	EPA-8260	U	4.0	1	UG/M3	03/28/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	4.1	1	UG/M3	03/28/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030152  
Edmonds, WA 98020 ALS SAMPLE#: -04  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/27/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/27/2013 12:37:00 PM  
CLIENT SAMPLE ID SVE-North:032713 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8260	U	4.5	1	UG/M3	03/28/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.8	1	UG/M3	03/28/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/M3	03/28/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	4.7	1	UG/M3	03/28/2013	GAP
Hexachlorobutadiene	EPA-8260	U	6.9	1	UG/M3	03/28/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	4.5	1	UG/M3	03/28/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	102	03/28/2013	GAP
4-Bromofluorobenzene	EPA-8260	101	03/28/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

**CLIENT:** Landau Associates, Inc. **DATE:** 4/1/2013  
 130 - 2nd Ave. S. **ALS SDG#:** EV13030152  
 Edmonds, WA 98020 **WDOE ACCREDITATION:** C601  
**CLIENT CONTACT:** Piper Roelen  
**CLIENT PROJECT:** Heavens Supply / #583002.050.056

**LABORATORY BLANK RESULTS**
**MB-032613A - Batch 3593 - Air by EPA-8260**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	9.4	1	UG/M3	03/26/2013	GAP
Chloromethane	EPA-8260	U	23	1	UG/M3	03/26/2013	GAP
Vinyl Chloride	EPA-8260	U	3.1	1	UG/M3	03/26/2013	GAP
Bromomethane	EPA-8260	U	14	1	UG/M3	03/26/2013	GAP
Chloroethane	EPA-8260	U	12	1	UG/M3	03/26/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.5	1	UG/M3	03/26/2013	GAP
Trichlorofluoromethane	EPA-8260	U	4.5	1	UG/M3	03/26/2013	GAP
1,1-Dichloroethene	EPA-8260	U	1.4	1	UG/M3	03/26/2013	GAP
Methylene Chloride	EPA-8260	U	68	1	UG/M3	03/26/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	9.7	1	UG/M3	03/26/2013	GAP
1,1-Dichloroethane	EPA-8260	U	3.0	1	UG/M3	03/26/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	6.8	1	UG/M3	03/26/2013	GAP
2,2-Dichloropropane	EPA-8260	U	4.1	1	UG/M3	03/26/2013	GAP
Bromochloromethane	EPA-8260	U	11	1	UG/M3	03/26/2013	GAP
Chloroform	EPA-8260	U	14	1	UG/M3	03/26/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	5.9	1	UG/M3	03/26/2013	GAP
1,1-Dichloropropene	EPA-8260	U	6.7	1	UG/M3	03/26/2013	GAP
1,2-Dichloroethane	EPA-8260	U	1.4	1	UG/M3	03/26/2013	GAP
Trichloroethene	EPA-8260	U	5.4	1	UG/M3	03/26/2013	GAP
1,2-Dichloropropane	EPA-8260	U	6.3	1	UG/M3	03/26/2013	GAP
Dibromomethane	EPA-8260	U	7.1	1	UG/M3	03/26/2013	GAP
Bromodichloromethane	EPA-8260	U	5.9	1	UG/M3	03/26/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	5.8	1	UG/M3	03/26/2013	GAP
Toluene	EPA-8260	U	1.5	1	UG/M3	03/26/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	4.8	1	UG/M3	03/26/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	5.2	1	UG/M3	03/26/2013	GAP
1,3-Dichloropropane	EPA-8260	U	6.6	1	UG/M3	03/26/2013	GAP
Tetrachloroethylene	EPA-8260	U	2.3	1	UG/M3	03/26/2013	GAP
Dibromochloromethane	EPA-8260	U	7.4	1	UG/M3	03/26/2013	GAP
1,2-Dibromoethane	EPA-8260	U	1.0	1	UG/M3	03/26/2013	GAP
Chlorobenzene	EPA-8260	U	2.4	1	UG/M3	03/26/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	8.7	1	UG/M3	03/26/2013	GAP
Bromoform	EPA-8260	U	5.3	1	UG/M3	03/26/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.9	1	UG/M3	03/26/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.3	1	UG/M3	03/26/2013	GAP
Bromobenzene	EPA-8260	U	4.1	1	UG/M3	03/26/2013	GAP
2-Chlorotoluene	EPA-8260	U	3.2	1	UG/M3	03/26/2013	GAP
4-Chlorotoluene	EPA-8260	U	4.0	1	UG/M3	03/26/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030152  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen

CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY BLANK RESULTS

### MB-032613A - Batch 3593 - Air by EPA-8260

1,3 Dichlorobenzene	EPA-8260	U	4.1	1	UG/M3	03/26/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	4.5	1	UG/M3	03/26/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.8	1	UG/M3	03/26/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/M3	03/26/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	4.7	1	UG/M3	03/26/2013	GAP
Hexachlorobutadiene	EPA-8260	U	6.9	1	UG/M3	03/26/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	4.5	1	UG/M3	03/26/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 4/1/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030152  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen

CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY CONTROL SAMPLE RESULTS

**ALS Test Batch ID: 3593 - Air by EPA-8260**

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	93.7			03/26/2013	GAP
1,1-Dichloroethene - BSD	EPA-8260	91.7	2		03/26/2013	GAP
Trichloroethene - BS	EPA-8260	92.6			03/26/2013	GAP
Trichloroethene - BSD	EPA-8260	89.4	3		03/26/2013	GAP
Toluene - BS	EPA-8260	89.1			03/26/2013	GAP
Toluene - BSD	EPA-8260	88.1	1		03/26/2013	GAP
Chlorobenzene - BS	EPA-8260	93.9			03/26/2013	GAP
Chlorobenzene - BSD	EPA-8260	92.9	1		03/26/2013	GAP

APPROVED BY

A handwritten signature in black ink, appearing to read "Bob Bayar".

Laboratory Director

# ALS ENVIRONMENTAL

## Sample Receiving Checklist

Client: Landau Associates ALS Job #: EV13030152

Project: Heavens Supply / #583002.050.056

Received Date: 3/27/13 Received Time: 4:50 By: SN

Type of shipping container: Cooler        Box X Other        By Rick

Shipped via: UPS/FedEx        US Postal Service        Courier        Hand Delivered X

Were custody seals on outside of sample?	<u>Yes</u>	<u>No</u>	<u>N/A</u>
<u>      </u>	<u>X</u>	<u>      </u>	<u>      </u>

If yes, how many? 1 Where? outside box

Custody seal date: 3/27/13 Seal name: Landau

Was Chain of Custody properly filled out (ink, signed, dated, etc.)? X              

Did all bottles have labels? X              

Did all bottle labels and tags agree with Chain of Custody? X              

Were samples received within hold time? X              

Did all bottles arrive in good condition (unbroken, etc.)? X              

Was sufficient amount of sample sent for the tests indicated? X              

Was correct preservation added to samples?               X

If no, Sample Control added preservative to the following:

<u>Sample Number</u>	<u>Reagent</u>	<u>Analyte</u>
<u>      </u>	<u>      </u>	<u>      </u>
<u>      </u>	<u>      </u>	<u>      </u>
<u>      </u>	<u>      </u>	<u>      </u>

Were VOA vials checked for absence of air bubbles?                     

Bubbles present in sample #: \_\_\_\_\_

Temperature of cooler upon receipt: N/A - Air Cold Cool Ambient N/A

Explain any discrepancies: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Was client contacted? \_\_\_\_\_ Who was called? \_\_\_\_\_ By whom? \_\_\_\_\_ Date: \_\_\_\_\_

Outcome of call: \_\_\_\_\_  
\_\_\_\_\_



- Seattle/Edmonds** (425) 778-0907
- Tacoma** (253) 926-2493
- Spokane** (509) 327-9737
- Portland** (503) 542-1080
-

EV13030152

Date 3-27-13  
Page 1 of 1

# **Chain-of-Custody Record**

Project Name <u>Heavens Supply</u>		Project No. <u>583002, 050, 056</u>		Testing Parameters											
Project Location/Event <u>Seattle, WA</u>				Turnaround Time											
Sampler's Name <u>Devan Brandt</u>				<input checked="" type="checkbox"/> Standard											
Project Contact <u>Piper Roelen</u>				<input checked="" type="checkbox"/> Accelerated											
Send Results To <u>Piper Roelen, Anne Halverson, Martin Valeri</u>				<input type="checkbox"/> 3 Days											
Sample I.D.	Date	Time	Matrix	No. of Containers	CVOCs (soil)										Observations/Comments
ERH-INF: 032713	3-27-13	1205	Air	1	X										X Allow water samples to settle, collect aliquot from clear portion
ERH-MID2: 032713	3-27-13	1208	Air	1	X										X NWTPH-Dx - run acid wash/silica gel cleanup
ERH-EFF: 032713	3-27-13	1211	Air	1	X										run samples standardized to product
SVE-North: 032713	3-27-13	1237	Air	1	X										Analyze for EPH if no specific product identified
															VOC/BTEX/VPH (soil):
															<input type="checkbox"/> non-preserved
															<input type="checkbox"/> preserved w/methanol
															<input type="checkbox"/> preserved w/sodium bisulfate
															<input type="checkbox"/> Freeze upon receipt
															Dissolved metal water samples field filtered
Other															
Special Shipment/Handling or Storage Requirements												Method of Shipment <u>Courier Pick up</u>			
Relinquished by <u>Devan Brandt</u> Signature Printed Name <u>Landau Associates</u> Company			Received by <u>Shawn Robinson</u> Signature Printed Name <u>Shawn Robinson</u> Company <u>ALS</u>			Relinquished by Signature Printed Name Company			Received by Signature Printed Name Company						
Date <u>3-27-13</u> Time <u>1433</u>			Date <u>3/27/13</u> Time <u>4:50</u>			Date _____ Time _____			Date _____ Time _____						

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ATTACHMENT 5

## **Laboratory Analytical Reports – Groundwater**



March 13, 2013

Mr. Piper Roelen  
Landau Associates, Inc.  
130 - 2nd Ave. S.  
Edmonds, WA 98020

Dear Mr. Roelen,

On March 7th, 4 samples were received by our laboratory and assigned our laboratory project number EV13030039. The project was identified as your Heavens Supply / #583002.050.056. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

A handwritten signature in black ink that reads "Rick Bagan".

Rick Bagan  
Laboratory Director

Page 1

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626

ALS Laboratory Group A Campbell Brothers Limited Company

Environmental

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 3/13/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030039  
 Edmonds, WA 98020 ALS SAMPLE#: -01  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/7/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/6/2013 4:57:00 PM  
 CLIENT SAMPLE ID: SMW-2:030613 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Chloromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	03/09/2013	GAP
Bromomethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Chloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Acetone	EPA-8260	U	25	1	UG/L	03/09/2013	GAP
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	03/09/2013	GAP
Acrylonitrile	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2-Butanone	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Chloroform	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Dibromomethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
Toluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2-Hexanone	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Tetrachloroethylene	EPA-8260	4.4	2.0	1	UG/L	03/09/2013	GAP
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	03/09/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/13/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030039  
Edmonds, WA 98020 ALS SAMPLE#: -01  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/7/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/6/2013 4:57:00 PM  
CLIENT SAMPLE ID SMW-2:030613 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	03/09/2013	GAP
Styrene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
o-Xylene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Naphthalene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	100	03/09/2013	GAP
Toluene-d8	EPA-8260	99.3	03/09/2013	GAP
4-Bromofluorobenzene	EPA-8260	102	03/09/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 3/13/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030039  
 Edmonds, WA 98020 ALS SAMPLE#: -02  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/7/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/6/2013 12:40:00 PM  
 CLIENT SAMPLE ID SMW-3:030613 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Chloromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	03/09/2013	GAP
Bromomethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Chloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Acetone	EPA-8260	U	25	1	UG/L	03/09/2013	GAP
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	03/09/2013	GAP
Acrylonitrile	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2-Butanone	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Chloroform	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Dibromomethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
Toluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2-Hexanone	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Tetrachloroethylene	EPA-8260	<b>9.8</b>	2.0	1	UG/L	03/09/2013	GAP
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	03/09/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/13/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030039  
Edmonds, WA 98020 ALS SAMPLE#: -02  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/7/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/6/2013 12:40:00 PM  
CLIENT SAMPLE ID SMW-3:030613 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	03/09/2013	GAP
Styrene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
o-Xylene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Naphthalene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	102	03/09/2013	GAP
Toluene-d8	EPA-8260	99.9	03/09/2013	GAP
4-Bromofluorobenzene	EPA-8260	101	03/09/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

CLIENT: Landau Associates, Inc. DATE: 3/13/2013  
 130 - 2nd Ave. S. ALS JOB#: EV13030039  
 Edmonds, WA 98020 ALS SAMPLE#: -03  
 CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/7/2013  
 CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/6/2013 1:45:00 PM  
 CLIENT SAMPLE ID SMW-4:030613 WDOE ACCREDITATION: C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Chloromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	03/09/2013	GAP
Bromomethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Chloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Acetone	EPA-8260	U	25	1	UG/L	03/09/2013	GAP
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	03/09/2013	GAP
Acrylonitrile	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2-Butanone	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Dibromomethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
Toluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2-Hexanone	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Tetrachloroethylene	EPA-8260	4.2	2.0	1	UG/L	03/09/2013	GAP
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	03/09/2013	GAP

**CERTIFICATE OF ANALYSIS**

**CLIENT:** Landau Associates, Inc. **DATE:** 3/13/2013  
 130 - 2nd Ave. S. **ALS JOB#:** EV13030039  
 Edmonds, WA 98020 **ALS SAMPLE#:** -03  
**CLIENT CONTACT:** Piper Roelen **DATE RECEIVED:** 3/7/2013  
**CLIENT PROJECT:** Heavens Supply / #583002.050.056 **COLLECTION DATE:** 3/6/2013 1:45:00 PM  
**CLIENT SAMPLE ID** SMW-4:030613 **WDOE ACCREDITATION:** C601

**DATA RESULTS**

<b>ANALYTE</b>	<b>METHOD</b>	<b>RESULTS</b>	<b>REPORTING LIMITS</b>	<b>DILUTION FACTOR</b>	<b>UNITS</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	03/09/2013	GAP
Styrene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
o-Xylene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Naphthalene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP

**ANALYSIS ANALYSIS**  
**DATE BY**

<b>SURROGATE</b>	<b>METHOD</b>	<b>%REC</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
1,2-Dichloroethane-d4	EPA-8260	106	03/09/2013	GAP
Toluene-d8	EPA-8260	98.5	03/09/2013	GAP
4-Bromofluorobenzene	EPA-8260	98.4	03/09/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

**CLIENT:** Landau Associates, Inc. **DATE:** 3/13/2013  
 130 - 2nd Ave. S. **ALS JOB#:** EV13030039  
 Edmonds, WA 98020 **ALS SAMPLE#:** -04  
**CLIENT CONTACT:** Piper Roelen **DATE RECEIVED:** 3/7/2013  
**CLIENT PROJECT:** Heavens Supply / #583002.050.056 **COLLECTION DATE:** 3/6/2013 8:00:00 AM  
**CLIENT SAMPLE ID:** Trip Blank **WDOE ACCREDITATION:** C601

**DATA RESULTS**

<b>ANALYTE</b>	<b>METHOD</b>	<b>RESULTS</b>	<b>REPORTING LIMITS</b>	<b>DILUTION FACTOR</b>	<b>UNITS</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Chloromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	03/09/2013	GAP
Bromomethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Chloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Acetone	EPA-8260	U	25	1	UG/L	03/09/2013	GAP
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	03/09/2013	GAP
Acrylonitrile	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2-Butanone	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trichloroethene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Dibromomethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
Toluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2-Hexanone	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	03/09/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/13/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030039  
Edmonds, WA 98020 ALS SAMPLE#: -04  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/7/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/6/2013 8:00:00 AM  
CLIENT SAMPLE ID Trip Blank WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	03/09/2013	GAP
Styrene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
o-Xylene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Bromobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	03/09/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
Naphthalene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/09/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	106	03/09/2013	GAP
Toluene-d8	EPA-8260	98.4	03/09/2013	GAP
4-Bromofluorobenzene	EPA-8260	97.9	03/09/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

**CLIENT:** Landau Associates, Inc. **DATE:** 3/13/2013  
 130 - 2nd Ave. S. **ALS SDG#:** EV13030039  
 Edmonds, WA 98020 **WDOE ACCREDITATION:** C601  
**CLIENT CONTACT:** Piper Roelen  
**CLIENT PROJECT:** Heavens Supply / #583002.050.056

**LABORATORY BLANK RESULTS**
**MB-030813W - Batch 3556 - Water by EPA-8260**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Chloromethane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	03/08/2013	GAP
Bromomethane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Chloroethane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Acetone	EPA-8260	U	25	1	UG/L	03/08/2013	GAP
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	03/08/2013	GAP
Acrylonitrile	EPA-8260	U	10	1	UG/L	03/08/2013	GAP
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
2-Butanone	EPA-8260	U	10	1	UG/L	03/08/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Chloroform	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Benzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Trichloroethene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Dibromomethane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	03/08/2013	GAP
Toluene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
2-Hexanone	EPA-8260	U	10	1	UG/L	03/08/2013	GAP
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	03/08/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/13/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030039  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen  
CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY BLANK RESULTS

### MB-030813W - Batch 3556 - Water by EPA-8260

Chlorobenzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	03/08/2013	GAP
Styrene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
o-Xylene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Bromobenzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	03/08/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
Naphthalene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/08/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/13/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030039  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen

CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY CONTROL SAMPLE RESULTS

### ALS Test Batch ID: 3556 - Water by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	109			03/08/2013	GAP
1,1-Dichloroethene - BSD	EPA-8260	115	5		03/08/2013	GAP
Benzene - BS	EPA-8260	116			03/08/2013	GAP
Benzene - BSD	EPA-8260	129	10		03/08/2013	GAP
Trichloroethene - BS	EPA-8260	123			03/08/2013	GAP
Trichloroethene - BSD	EPA-8260	125	2		03/08/2013	GAP
Toluene - BS	EPA-8260	108			03/08/2013	GAP
Toluene - BSD	EPA-8260	114	5		03/08/2013	GAP
Chlorobenzene - BS	EPA-8260	109			03/08/2013	GAP
Chlorobenzene - BSD	EPA-8260	113	3		03/08/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/13/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030039  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen

CLIENT PROJECT: Heavens Supply / #583002.050.056

## MATRIX SPIKE RESULTS

### ALS Test Batch ID: 3556 - Water

Parent Sample: SMW-3:030613

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - MS	EPA-8260	122			03/08/2013	GAP
1,1-Dichloroethene - MSD	EPA-8260	103	17		03/08/2013	GAP
Benzene - MS	EPA-8260	125			03/08/2013	GAP
Benzene - MSD	EPA-8260	104	18		03/08/2013	GAP
Trichloroethene - MS	EPA-8260	137			03/08/2013	GAP
Trichloroethene - MSD	EPA-8260	112	19		03/08/2013	GAP
Toluene - MS	EPA-8260	114			03/08/2013	GAP
Toluene - MSD	EPA-8260	97.5	16		03/08/2013	GAP
Chlorobenzene - MS	EPA-8260	114			03/08/2013	GAP
Chlorobenzene - MSD	EPA-8260	96.5	16		03/08/2013	GAP

APPROVED BY

A handwritten signature in black ink, appearing to read "Bob Bagar".

Laboratory Director

# ALS ENVIRONMENTAL

## Sample Receiving Checklist

Client: Landau Associates ALS Job #: EV13030039

Project: Heavens Supply / # 583002.050.056

Received Date: 3/7/13 Received Time: 1:30 By: Sr

Type of shipping container: Cooler  Box  Other

Shipped via: UPS/FedEx  US Postal Service  Courier  Hand Delivered  *By Rick*

Were custody seals on outside of sample?  Yes  No  N/A

If yes, how many? 1 Where? outside cooler

Custody seal date: 3/7/13 Seal name: Landau

Was Chain of Custody properly filled out (ink, signed, dated, etc.)?

Did all bottles have labels?

Did all bottle labels and tags agree with Chain of Custody?

Were samples received within hold time?

Did all bottles arrive in good condition (unbroken, etc.)?

Was sufficient amount of sample sent for the tests indicated?

Was correct preservation added to samples?

If no, Sample Control added preservative to the following:

<u>Sample Number</u>	<u>Reagent</u>	<u>Analyte</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Were VOA vials checked for absence of air bubbles?

Bubbles present in sample #: None

Temperature of cooler upon receipt: 6.6 °C on ice  Cold  Cool  Ambient  N/A

Explain any discrepancies: Received Trip Blanks but not listed on COC.  
Received 9 voas for SMW-3:030613 but no indication if they want ms/msn).

Was client contacted? Martin Who was called? Martin By whom? Rick Date: 3/7/13  
 Yes, e mailed

Outcome of call: Add - Trip blank No ms/msn - RS

EV13030039



- Seattle/Edmonds (425) 778-0907  
 Tacoma (253) 926-2493  
 Spokane (509) 327-9737  
 Portland (503) 542-1080

### Ground Water

Date 3-7-13

Page 1 of 1

### Chain-of-Custody Record

Project Information					Testing Parameters				
Project Name	Project No.				Turnaround Time				
Heaven Supply	585002.050.056				<input checked="" type="checkbox"/> Standard				
Project Location/Event	7049 Greenwest Ave N Seattle, WA				<input type="checkbox"/> Accelerated				
Sampler's Name	Devon Brandt				<input type="checkbox"/>				
Project Contact	Piper Roelen				<input type="checkbox"/>				
Send Results To	Piper Roelen, Anne Carlson, Martin Valeri				<input type="checkbox"/>				
Sample I.D.	Date	Time	Matrix	No. of Containers	<input type="checkbox"/>				
SMW-2-030613	3-6-13	1657	Water	3	X				
SMW-2-030613									
SMW-3-030613	3-6-13	1240	Water	9	X				
SMW-4-030613	3-6-13	1345	Water	3	X				
Trip Blank					(X)				
Observations/Comments									
<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion <input checked="" type="checkbox"/> NWTPH-Dx - run acid wash/silica gel cleanup <input type="checkbox"/> run samples standardized to product <input type="checkbox"/> Analyze for EPH if no specific product identified  VOC/BTEX / VPH (soil): <input type="checkbox"/> non-preserved <input type="checkbox"/> preserved w/methanol <input type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt  <input type="checkbox"/> Dissolved metal water samples field filtered									
<input checked="" type="checkbox"/> Added by Martin Valeri									
Special Shipment/Handling or Storage Requirements					Method of Shipment				
POC, TCE, DCE & TC only Run full suite of VOCs DSB 3-7-13									
Relinquished by	Received by	Relinquished by	Received by						
Devon Brandt	Rick Bagan	Signature	Signature						
Printed Name	ALS	Printed Name	Printed Name						
Company		Company	Company						
Date	Date	Date	Date						
7-7-13	7/7/13	Time	Time						
1052	1:30								

WHITE COPY - Project File

YELLOW COPY - Laboratory

PINK COPY - Client Representative

Rev B/09



March 25, 2013

Mr. Piper Roelen  
Landau Associates, Inc.  
130 - 2nd Ave. S.  
Edmonds, WA 98020

Dear Mr. Roelen,

On March 21st, 6 samples were received by our laboratory and assigned our laboratory project number EV13030127. The project was identified as your Heavens Supply / #583002.050.056. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

A handwritten signature in black ink that reads "Rick Bagan".

Rick Bagan  
Laboratory Director

Page 1

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626

ALS Laboratory Group A Campbell Brothers Limited Company

Environmental

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER



## CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE:	3/25/2013
		ALS JOB#:	EV13030127
		ALS SAMPLE#:	-01
CLIENT CONTACT:	Piper Roelen	DATE RECEIVED:	3/21/2013
CLIENT PROJECT:	Heavens Supply / #583002.050.056	COLLECTION DATE:	3/21/2013 9:10:00 AM
CLIENT SAMPLE ID	MW-5:032113	WDOE ACCREDITATION:	C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	03/21/2013	GAP
Bromomethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Acetone	EPA-8260	U	25	1	UG/L	03/21/2013	GAP
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	03/21/2013	GAP
Acrylonitrile	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Butanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloroform	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Dibromomethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Toluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Hexanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	03/21/2013	GAP



### CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/25/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030127  
Edmonds, WA 98020 ALS SAMPLE#: -01  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/21/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/21/2013 9:10:00 AM  
CLIENT SAMPLE ID MW-5:032113 WDOE ACCREDITATION: C601

### DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	03/21/2013	GAP
Styrene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
o-Xylene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	3.2	2.0	1	UG/L	03/21/2013	GAP
Hexachlorobutadiene	EPA-8260	2.5	2.0	1	UG/L	03/21/2013	GAP
Naphthalene	EPA-8260	4.0	2.0	1	UG/L	03/21/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	4.1	2.0	1	UG/L	03/21/2013	GAP

### ANALYSIS ANALYSIS DATE BY

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	107	03/21/2013	GAP
Toluene-d8	EPA-8260	93.3	03/21/2013	GAP
4-Bromofluorobenzene	EPA-8260	105	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

**CLIENT:** Landau Associates, Inc. **DATE:** 3/25/2013  
 130 - 2nd Ave. S. **ALS JOB#:** EV13030127  
 Edmonds, WA 98020 **ALS SAMPLE#:** -02  
**CLIENT CONTACT:** Piper Roelen **DATE RECEIVED:** 3/21/2013  
**CLIENT PROJECT:** Heavens Supply / #583002.050.056 **COLLECTION DATE:** 3/21/2013 9:50:00 AM  
**CLIENT SAMPLE ID** DUP:032113 **WDOE ACCREDITATION:** C601

**DATA RESULTS**

<b>ANALYTE</b>	<b>METHOD</b>	<b>RESULTS</b>	<b>REPORTING LIMITS</b>	<b>DILUTION FACTOR</b>	<b>UNITS</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	03/21/2013	GAP
Bromomethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Acetone	EPA-8260	U	25	1	UG/L	03/21/2013	GAP
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	03/21/2013	GAP
Acrylonitrile	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Butanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Dibromomethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Toluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Hexanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	03/21/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/25/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030127  
Edmonds, WA 98020 ALS SAMPLE#: -02  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/21/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/21/2013 9:50:00 AM  
CLIENT SAMPLE ID DUP:032113 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	03/21/2013	GAP
Styrene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
o-Xylene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Naphthalene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	107	03/21/2013	GAP
Toluene-d8	EPA-8260	92.3	03/21/2013	GAP
4-Bromofluorobenzene	EPA-8260	105	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

**CLIENT:** Landau Associates, Inc. **DATE:** 3/25/2013  
 130 - 2nd Ave. S. **ALS JOB#:** EV13030127  
 Edmonds, WA 98020 **ALS SAMPLE#:** -03  
**CLIENT CONTACT:** Piper Roelen **DATE RECEIVED:** 3/21/2013  
**CLIENT PROJECT:** Heavens Supply / #583002.050.056 **COLLECTION DATE:** 3/21/2013 10:10:00 AM  
**CLIENT SAMPLE ID** MW-4:032113 **WDOE ACCREDITATION:** C601

**DATA RESULTS**

<b>ANALYTE</b>	<b>METHOD</b>	<b>RESULTS</b>	<b>REPORTING LIMITS</b>	<b>DILUTION FACTOR</b>	<b>UNITS</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	03/21/2013	GAP
Bromomethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Acetone	EPA-8260	U	25	1	UG/L	03/21/2013	GAP
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	03/21/2013	GAP
Acrylonitrile	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Butanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Dibromomethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Toluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Hexanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	03/21/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/25/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030127  
Edmonds, WA 98020 ALS SAMPLE#: -03  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/21/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/21/2013 10:10:00 AM  
CLIENT SAMPLE ID MW-4:032113 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	03/21/2013	GAP
Styrene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
o-Xylene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Naphthalene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	108	03/21/2013	GAP
Toluene-d8	EPA-8260	92.1	03/21/2013	GAP
4-Bromofluorobenzene	EPA-8260	105	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

**CLIENT:** Landau Associates, Inc. **DATE:** 3/25/2013  
 130 - 2nd Ave. S. **ALS JOB#:** EV13030127  
 Edmonds, WA 98020 **ALS SAMPLE#:** -04  
**CLIENT CONTACT:** Piper Roelen **DATE RECEIVED:** 3/21/2013  
**CLIENT PROJECT:** Heavens Supply / #583002.050.056 **COLLECTION DATE:** 3/21/2013 10:50:00 AM  
**CLIENT SAMPLE ID** MW-2:032113 **WDOE ACCREDITATION:** C601

**DATA RESULTS**

<b>ANALYTE</b>	<b>METHOD</b>	<b>RESULTS</b>	<b>REPORTING LIMITS</b>	<b>DILUTION FACTOR</b>	<b>UNITS</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	03/21/2013	GAP
Bromomethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Acetone	EPA-8260	U	25	1	UG/L	03/21/2013	GAP
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	03/21/2013	GAP
Acrylonitrile	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Butanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Dibromomethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Toluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Hexanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	03/21/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/25/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030127  
Edmonds, WA 98020 ALS SAMPLE#: -04  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/21/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/21/2013 10:50:00 AM  
CLIENT SAMPLE ID MW-2:032113 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	03/21/2013	GAP
Styrene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
o-Xylene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Naphthalene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	109	03/21/2013	GAP
Toluene-d8	EPA-8260	92.2	03/21/2013	GAP
4-Bromofluorobenzene	EPA-8260	105	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

**CLIENT:** Landau Associates, Inc. **DATE:** 3/25/2013  
 130 - 2nd Ave. S. **ALS JOB#:** EV13030127  
 Edmonds, WA 98020 **ALS SAMPLE#:** -05  
**CLIENT CONTACT:** Piper Roelen **DATE RECEIVED:** 3/21/2013  
**CLIENT PROJECT:** Heavens Supply / #583002.050.056 **COLLECTION DATE:** 3/21/2013 11:12:00 AM  
**CLIENT SAMPLE ID** MW-3:032113 **WDOE ACCREDITATION:** C601

**DATA RESULTS**

<b>ANALYTE</b>	<b>METHOD</b>	<b>RESULTS</b>	<b>REPORTING LIMITS</b>	<b>DILUTION FACTOR</b>	<b>UNITS</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	03/21/2013	GAP
Bromomethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Acetone	EPA-8260	U	25	1	UG/L	03/21/2013	GAP
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	03/21/2013	GAP
Acrylonitrile	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Butanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Dibromomethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Toluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Hexanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	03/21/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/25/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030127  
Edmonds, WA 98020 ALS SAMPLE#: -05  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/21/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/21/2013 11:12:00 AM  
CLIENT SAMPLE ID MW-3:032113 WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	03/21/2013	GAP
Styrene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
o-Xylene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Naphthalene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	107	03/21/2013	GAP
Toluene-d8	EPA-8260	92.6	03/21/2013	GAP
4-Bromofluorobenzene	EPA-8260	106	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

**CLIENT:** Landau Associates, Inc. **DATE:** 3/25/2013  
 130 - 2nd Ave. S. **ALS JOB#:** EV13030127  
 Edmonds, WA 98020 **ALS SAMPLE#:** -06  
**CLIENT CONTACT:** Piper Roelen **DATE RECEIVED:** 3/21/2013  
**CLIENT PROJECT:** Heavens Supply / #583002.050.056 **COLLECTION DATE:** 3/21/2013 8:00:00 AM  
**CLIENT SAMPLE ID** Trip Blanks **WDOE ACCREDITATION:** C601

**DATA RESULTS**

<b>ANALYTE</b>	<b>METHOD</b>	<b>RESULTS</b>	<b>REPORTING LIMITS</b>	<b>DILUTION FACTOR</b>	<b>UNITS</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	03/21/2013	GAP
Bromomethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Acetone	EPA-8260	U	25	1	UG/L	03/21/2013	GAP
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	03/21/2013	GAP
Acrylonitrile	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Butanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloroform	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Dibromomethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Toluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Hexanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	03/21/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/25/2013  
130 - 2nd Ave. S. ALS JOB#: EV13030127  
Edmonds, WA 98020 ALS SAMPLE#: -06  
CLIENT CONTACT: Piper Roelen DATE RECEIVED: 3/21/2013  
CLIENT PROJECT: Heavens Supply / #583002.050.056 COLLECTION DATE: 3/21/2013 8:00:00 AM  
CLIENT SAMPLE ID Trip Blanks WDOE ACCREDITATION: C601

## DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	03/21/2013	GAP
Styrene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
o-Xylene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Naphthalene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
1,2-Dichloroethane-d4	EPA-8260	108	03/21/2013	GAP
Toluene-d8	EPA-8260	91.4	03/21/2013	GAP
4-Bromofluorobenzene	EPA-8260	105	03/21/2013	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

**CERTIFICATE OF ANALYSIS**

**CLIENT:** Landau Associates, Inc. **DATE:** 3/25/2013  
 130 - 2nd Ave. S. **ALS SDG#:** EV13030127  
 Edmonds, WA 98020 **WDOE ACCREDITATION:** C601  
**CLIENT CONTACT:** Piper Roelen  
**CLIENT PROJECT:** Heavens Supply / #583002.050.056

**LABORATORY BLANK RESULTS**
**MB-032113W - Batch 3584 - Water by EPA-8260**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	03/21/2013	GAP
Bromomethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Acetone	EPA-8260	U	25	1	UG/L	03/21/2013	GAP
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	03/21/2013	GAP
Acrylonitrile	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Butanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Chloroform	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trichloroethene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Dibromomethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
Toluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Hexanone	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	03/21/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/25/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030127  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen  
CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY BLANK RESULTS

### MB-032113W - Batch 3584 - Water by EPA-8260

Chlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	03/21/2013	GAP
Styrene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
o-Xylene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromoform	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Bromobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,3 Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	03/21/2013	GAP
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
Naphthalene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	03/21/2013	GAP



## CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc. DATE: 3/25/2013  
130 - 2nd Ave. S. ALS SDG#: EV13030127  
Edmonds, WA 98020 WDOE ACCREDITATION: C601

CLIENT CONTACT: Piper Roelen

CLIENT PROJECT: Heavens Supply / #583002.050.056

## LABORATORY CONTROL SAMPLE RESULTS

### ALS Test Batch ID: 3584 - Water by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	92.0			03/21/2013	GAP
1,1-Dichloroethene - BSD	EPA-8260	92.3	0		03/21/2013	GAP
Benzene - BS	EPA-8260	101			03/21/2013	GAP
Benzene - BSD	EPA-8260	108	7		03/21/2013	GAP
Trichloroethene - BS	EPA-8260	104			03/21/2013	GAP
Trichloroethene - BSD	EPA-8260	104	0		03/21/2013	GAP
Toluene - BS	EPA-8260	100			03/21/2013	GAP
Toluene - BSD	EPA-8260	101	0		03/21/2013	GAP
Chlorobenzene - BS	EPA-8260	91.0			03/21/2013	GAP
Chlorobenzene - BSD	EPA-8260	90.9	0		03/21/2013	GAP

# ALS ENVIRONMENTAL

## Sample Receiving Checklist

Client: Landau Associates

ALS Job #: EV13030127

Project: Heavens Supply / # 583002.050.056

Received Date: 3/21/13 Received Time: 2:15 pm By: Syl

Type of shipping container: Cooler X Box   Other  

Shipped via: UPS/FedEx   US Postal Service   Courier   Hand Delivered X <sup>By</sup> Pick

Yes	No	N/A
<u>X</u>		

Were custody seals on outside of sample?

If yes, how many? 1 Where? outside cooler

Custody seal date: 3/21/13 Seal name: Landau

Was Chain of Custody properly filled out (ink, signed, dated, etc.)?

X    

Did all bottles have labels?

X    

Did all bottle labels and tags agree with Chain of Custody?

X    

Were samples received within hold time?

X    

Did all bottles arrive in good condition (unbroken, etc.)?

X    

Was sufficient amount of sample sent for the tests indicated?

X    

Was correct preservation added to samples?

X    

If no, Sample Control added preservative to the following:

<u>Sample Number</u>	<u>Reagent</u>	<u>Analyte</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Were VOA vials checked for absence of air bubbles?  
Received 3 voas  
Bubbles present in sample #: #2 - 1 vial almost empty, #6 - small bubble in 1 vial

Temperature of cooler upon receipt: 9.6°C on ice  Cold Cool Ambient N/A

Explain any discrepancies:  
\_\_\_\_\_  
\_\_\_\_\_

Was client contacted? No There is still enough sample to analyze out of other voas.  
Who was called? \_\_\_\_\_ By whom? \_\_\_\_\_ Date: \_\_\_\_\_

Outcome of call: \_\_\_\_\_  
\_\_\_\_\_



LANDAU  
ASSOCIATES

- Seattle/Edmonds** (425) 778-0907
  - Tacoma** (253) 926-2493
  - Spokane** (509) 327-9737
  - Portland** (503) 542-1080
  -

EV/3030127

Date 3-21-13  
Page 1 of 1

## **Chain-of-Custody Record**

Project Name <u>Heaven's Supply</u>		Project No. <u>983002.050.056</u>		Testing Parameters	
Project Location/Event <u>Seattle, WA</u>		<u>underwater samples</u>		Turnaround Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/>	
Sampler's Name <u>Devin Brandt</u>					
Project Contact <u>Piper Reuter</u>					
Send Results To <u>Piper Reuter, Anne Hallison, Martin Valeri</u>					
Sample I.D.	Date	Time	Matrix	No. of Containers	Observations/Comments
MW-5:032113	3-21-13	910	Water	3 X	X Allow water samples to settle, collect aliquot from clear portion
DUP:032113		950		2 X	X NWTPH-Dx - run acid wash/silica gel cleanup
MW-4:032113		1010		3 X	
MW-2:032113		1050		3 X	
MW-3:032113		1112		3 X	run samples standardized to product
Trip Blanks				2 X	Analyze for EPH if no specific product identified
<del>WR-1:032013</del>	<del>3-20-13</del>	<del>1737</del>	<del>Air</del>	<del>1</del>	VOC/BTEX/VPH (sol): <input type="checkbox"/> non-preserved <input type="checkbox"/> preserved w/methanol <input type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt  <input type="checkbox"/> Dissolved metal water samples field filtered
Special Shipment/Handling or Storage Requirements					Method of Shipment
Relinquished by <u>Devin Brandt</u> Signature <u>Devin Brandt</u> Printed Name <u>Longview Assessments</u> Company	Received by <u>Shawn Robinson</u> Signature <u>Shawn Robinson</u> Printed Name <u>ALS</u> Company	Relinquished by  Signature  Printed Name  Company	Received by  Signature  Printed Name  Company		
Date <u>3-21-13</u> Time <u>1815</u>	Date <u>3/21/13</u> Time <u>2:15</u>	Date _____ Time _____	Date _____ Time _____		

ATTACHMENT 6

## **Laboratory Analytical Reports – Smith Property Soil**



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

February 13, 2013

Piper Roelen  
Landau Associates, Inc.  
130 2<sup>nd</sup> Avenue S.  
Edmonds, WA 98020

**RE: Project No: 583002.050.056**  
**Project Name: Heaven's Supply**  
**ARI Job No: WD47**

Dear Piper:

Please find enclosed the Chain-of-Custody (COC) records, sample receipt documentation, and the final results from the project referenced above. Analytical Resources, Inc. (ARI) accepted three soil samples in good condition on February 11, 2013. There were no discrepancies between container labels and Chain-of-Custody sample IDs. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for VOCs, as requested on the COC.

The CCAL is out of control high for all associated FORM III "Q" flagged analytes. All associated samples that contain analyte have been flagged with a "Q" qualifier.

The LCS and/or LCSD are out of control high for Iodomethane and Methylene Chloride. All other QC is in control and no further corrective action was taken.

There were no other anomalies associated with the analyses of the samples.

A copy of this report and all corresponding raw data will remain on file electronically with ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

  
Kelly Bottem  
Client Services Manager  
(206) 695-6211  
[kellyb@arilabs.com](mailto:kellyb@arilabs.com)

## **Chain of Custody Record & Laboratory Analysis Request**

ARI Assigned Number:	WD 41	Turn-around Requested:	24-hr
ARI Client Company:	LANDAU ASSOCIATES		
Client Contact:	Phone: 425 778 0907 MATT MORONEY, PIPER JAFFRAY		
Client Project Name:	HEAVENS SUPPLY		
Client Project #:	583002-050-056	Samplers:	MSM

Page:	1	of	1
Date:	2/11/13	Ice Present?	✓
No. of Coolers:	1	Cooler Temps:	4 - 6



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants  
4611 South 134th Place, Suite 100  
Tukwila, WA 98168  
206-695-6200 206-695-6201 (fax)

**Limits of Liability:** ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

**Sample Retention Policy:** All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

# Sample ID Cross Reference Report



ARI Job No: WD47

Client: Landau

Project Event: 583002.050.056

Project Name: Heavens Supply

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. B-1	WD47A	13-2965	Soil	02/11/13 13:10	02/11/13 16:40
2. B-2	WD47B	13-2966	Soil	02/11/13 13:20	02/11/13 16:40
3. B-3	WD47C	13-2967	Soil	02/11/13 13:30	02/11/13 16:40



# Cooler Receipt Form

ARI Client: Landau

COC No(s): \_\_\_\_\_ NA

Assigned ARI Job No: W047

## Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES  NO

Were custody papers included with the cooler? YES  NO

Were custody papers properly filled out (ink, signed, etc) YES  NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 4.0

If cooler temperature is out of compliance fill out form 00070F

Cooler Accepted by TB Date: 2-11-13 Time: 1640 Temp Gun ID#: QD877952

**Complete custody forms and attach all shipping documents**

## Log-In Phase:

Was a temperature blank included in the cooler? YES  NO

What kind of packing material was used? Bubble Wrap  Wet Ice  Gel Packs  Baggies  Foam Block  Paper  Other:

Was sufficient ice used (if appropriate)? YES  NO

Were all bottles sealed in individual plastic bags? YES  NO

Did all bottles arrive in good condition (unbroken)? YES  NO

Were all bottle labels complete and legible? YES  NO

Did the number of containers listed on COC match with the number of containers received? YES  NO

Did all bottle labels and tags agree with custody papers? YES  NO

Were all bottles used correct for the requested analyses? YES  NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) YES  NO

Were all VOC vials free of air bubbles? YES  NO

Was sufficient amount of sample sent in each bottle? YES  NO

Date VOC Trip Blank was made at ARI: YES  NO

Was Sample Split by ARI: YES  Date/Time: \_\_\_\_\_ Equipment: \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by: TS Date: 2-11-13 Time: 1645

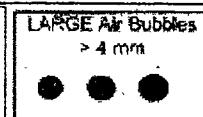
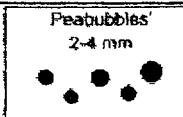
**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

## Additional Notes, Discrepancies, & Resolutions:

By: \_\_\_\_\_

Date: \_\_\_\_\_



Small → "sm"

Peabubbles → "pb"

Large → "lg"

Headspace → "hs"

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

Page 1 of 2

**ANALYTICAL  
RESOURCES  
INCORPORATED**


Lab Sample ID: WD47A

LIMS ID: 13-2965

Matrix: Soil

Data Release Authorized: *BS*

Reported: 02/13/13

Sample ID: B-1  
SAMPLE

QC Report No: WD47-Landau

Project: Heavens Supply

583002.050.056

Date Sampled: 02/11/13

Date Received: 02/11/13

Instrument/Analyst: NT5/PAB

Date Analyzed: 02/12/13 15:18

Sample Amount: 4.41 g-dry-wt

Purge Volume: 5.0 mL

Moisture: 14.6%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.1	< 1.1	U
74-83-9	Bromomethane	1.1	< 1.1	U
75-01-4	Vinyl Chloride	1.1	< 1.1	U
75-00-3	Chloroethane	1.1	< 1.1	U
75-09-2	Methylene Chloride	2.3	< 2.3	U
<b>67-64-1</b>	<b>Acetone</b>	<b>5.7</b>	<b>92</b>	
75-15-0	Carbon Disulfide	1.1	< 1.1	U
75-35-4	1,1-Dichloroethene	1.1	< 1.1	U
75-34-3	1,1-Dichloroethane	1.1	< 1.1	U
156-60-5	trans-1,2-Dichloroethene	1.1	< 1.1	U
156-59-2	cis-1,2-Dichloroethene	1.1	< 1.1	U
67-66-3	Chloroform	1.1	< 1.1	U
107-06-2	1,2-Dichloroethane	1.1	< 1.1	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>5.7</b>	<b>8.0</b>	
71-55-6	1,1,1-Trichloroethane	1.1	< 1.1	U
56-23-5	Carbon Tetrachloride	1.1	< 1.1	U
108-05-4	Vinyl Acetate	5.7	< 5.7	U
75-27-4	Bromodichloromethane	1.1	< 1.1	U
78-87-5	1,2-Dichloropropane	1.1	< 1.1	U
10061-01-5	cis-1,3-Dichloropropene	1.1	< 1.1	U
79-01-6	Trichloroethene	1.1	< 1.1	U
124-48-1	Dibromochloromethane	1.1	< 1.1	U
79-00-5	1,1,2-Trichloroethane	1.1	< 1.1	U
<b>71-43-2</b>	<b>Benzene</b>	<b>1.1</b>	<b>2.3</b>	
10061-02-6	trans-1,3-Dichloropropene	1.1	< 1.1	U
110-75-8	2-Chloroethylvinylether	5.7	< 5.7	U
75-25-2	Bromoform	1.1	< 1.1	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.7	< 5.7	U
591-78-6	2-Hexanone	5.7	< 5.7	U
<b>127-18-4</b>	<b>Tetrachloroethene</b>	<b>1.1</b>	<b>2.3</b>	
79-34-5	1,1,2,2-Tetrachloroethane	1.1	< 1.1	U
<b>108-88-3</b>	<b>Toluene</b>	<b>1.1</b>	<b>1.9</b>	
108-90-7	Chlorobenzene	1.1	< 1.1	U
100-41-4	Ethylbenzene	1.1	< 1.1	U
100-42-5	Styrene	1.1	< 1.1	U
75-69-4	Trichlorofluoromethane	1.1	< 1.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.3	< 2.3	U
179601-23-1	m,p-Xylene	1.1	< 1.1	U
95-47-6	o-Xylene	1.1	< 1.1	U
95-50-1	1,2-Dichlorobenzene	1.1	< 1.1	U
541-73-1	1,3-Dichlorobenzene	1.1	< 1.1	U
106-46-7	1,4-Dichlorobenzene	1.1	< 1.1	U
107-02-8	Acrolein	57	< 57	U
74-88-4	Iodomethane	1.1	< 1.1	U
74-96-4	Bromoethane	2.3	< 2.3	U
107-13-1	Acrylonitrile	5.7	< 5.7	U
563-58-6	1,1-Dichloropropene	1.1	< 1.1	U
74-95-3	Dibromomethane	1.1	< 1.1	U
630-20-6	1,1,2-Tetrachloroethane	1.1	< 1.1	U
96-12-8	1,2-Dibromo-3-chloropropane	5.7	< 5.7	U
96-18-4	1,2,3-Trichloropropane	2.3	< 2.3	U
110-57-6	trans-1,4-Dichloro-2-butene	5.7	< 5.7	U
108-67-8	1,3,5-Trimethylbenzene	1.1	< 1.1	U

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

Page 2 of 2

Sample ID: B-1  
SAMPLE

Lab Sample ID: WD47A

QC Report No: WD47-Landau

LIMS ID: 13-2965

Project: Heavens Supply

Matrix: Soil

583002.050.056

Date Analyzed: 02/12/13 15:18

CAS Number	Analyte	RL	Result	Q
95-63-6	1,2,4-Trimethylbenzene	1.1	< 1.1	U
87-68-3	Hexachlorobutadiene	5.7	< 5.7	U
106-93-4	1,2-Dibromoethane	1.1	< 1.1	U
74-97-5	Bromochloromethane	1.1	< 1.1	U
594-20-7	2,2-Dichloropropane	1.1	< 1.1	U
142-28-9	1,3-Dichloropropane	1.1	< 1.1	U
98-82-8	Isopropylbenzene	1.1	< 1.1	U
103-65-1	n-Propylbenzene	1.1	< 1.1	U
108-86-1	Bromobenzene	1.1	< 1.1	U
95-49-8	2-Chlorotoluene	1.1	< 1.1	U
106-43-4	4-Chlorotoluene	1.1	< 1.1	U
98-06-6	tert-Butylbenzene	1.1	< 1.1	U
135-98-8	sec-Butylbenzene	1.1	< 1.1	U
99-87-6	4-Isopropyltoluene	1.1	< 1.1	U
104-51-8	n-Butylbenzene	1.1	< 1.1	U
120-82-1	1,2,4-Trichlorobenzene	5.7	< 5.7	U
91-20-3	Naphthalene	5.7	< 5.7	U
87-61-6	1,2,3-Trichlorobenzene	5.7	< 5.7	U

Reported in µg/kg (ppb)

## Volatile Surrogate Recovery

d4-1,2-Dichloroethane	108%
d8-Toluene	99.2%
Bromofluorobenzene	72.0%
d4-1,2-Dichlorobenzene	104%

## ORGANICS ANALYSIS DATA SHEET

Volatile s by Purge &amp; Trap GC/MS-Method SW8260C

Page 1 of 2

**ANALYTICAL  
RESOURCES  
INCORPORATED**

**Sample ID: B-1  
REANALYSIS**

Lab Sample ID: WD47A

LIMS ID: 13-2965

Matrix: Soil

Data Release Authorized:

Reported: 02/13/13

QC Report No: WD47-Landau

Project: Heavens Supply

583002.050.056

Date Sampled: 02/11/13

Date Received: 02/11/13

Instrument/Analyst: NT5/PAB

Date Analyzed: 02/12/13 16:48

Sample Amount: 4.33 g-dry-wt

Purge Volume: 5.0 mL

Moisture: 14.6%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.2	< 1.2	U
74-83-9	Bromomethane	1.2	< 1.2	U
75-01-4	Vinyl Chloride	1.2	< 1.2	U
75-00-3	Chloroethane	1.2	< 1.2	U
75-09-2	Methylene Chloride	2.3	< 2.3	U
<b>67-64-1</b>	<b>Acetone</b>	<b>5.8</b>	<b>78</b>	
75-15-0	Carbon Disulfide	1.2	< 1.2	U
75-35-4	1,1-Dichloroethene	1.2	< 1.2	U
75-34-3	1,1-Dichloroethane	1.2	< 1.2	U
156-60-5	trans-1,2-Dichloroethene	1.2	< 1.2	U
156-59-2	cis-1,2-Dichloroethene	1.2	< 1.2	U
67-66-3	Chloroform	1.2	< 1.2	U
107-06-2	1,2-Dichloroethane	1.2	< 1.2	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>5.8</b>	<b>6.9</b>	
71-55-6	1,1,1-Trichloroethane	1.2	< 1.2	U
56-23-5	Carbon Tetrachloride	1.2	< 1.2	U
108-05-4	Vinyl Acetate	5.8	< 5.8	U
75-27-4	Bromodichloromethane	1.2	< 1.2	U
78-87-5	1,2-Dichloropropane	1.2	< 1.2	U
10061-01-5	cis-1,3-Dichloropropene	1.2	< 1.2	U
79-01-6	Trichloroethene	1.2	< 1.2	U
124-48-1	Dibromochloromethane	1.2	< 1.2	U
79-00-5	1,1,2-Trichloroethane	1.2	< 1.2	U
<b>71-43-2</b>	<b>Benzene</b>	<b>1.2</b>	<b>2.3</b>	
10061-02-6	trans-1,3-Dichloropropene	1.2	< 1.2	U
110-75-8	2-Chloroethylvinylether	5.8	< 5.8	U
75-25-2	Bromoform	1.2	< 1.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.8	< 5.8	U
591-78-6	2-Hexanone	5.8	< 5.8	U
<b>127-18-4</b>	<b>Tetrachloroethene</b>	<b>1.2</b>	<b>2.0</b>	
79-34-5	1,1,2,2-Tetrachloroethane	1.2	< 1.2	U
<b>108-88-3</b>	<b>Toluene</b>	<b>1.2</b>	<b>1.8</b>	
108-90-7	Chlorobenzene	1.2	< 1.2	U
100-41-4	Ethylbenzene	1.2	< 1.2	U
100-42-5	Styrene	1.2	< 1.2	U
75-69-4	Trichlorofluoromethane	1.2	< 1.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.3	< 2.3	U
179601-23-1	m,p-Xylene	1.2	< 1.2	U
95-47-6	o-Xylene	1.2	< 1.2	U
95-50-1	1,2-Dichlorobenzene	1.2	< 1.2	U
541-73-1	1,3-Dichlorobenzene	1.2	< 1.2	U
106-46-7	1,4-Dichlorobenzene	1.2	< 1.2	U
107-02-8	Acrolein	58	< 58	U
74-88-4	Iodomethane	1.2	< 1.2	U
74-96-4	Bromoethane	2.3	< 2.3	U
107-13-1	Acrylonitrile	5.8	< 5.8	U
563-58-6	1,1-Dichloropropene	1.2	< 1.2	U
74-95-3	Dibromomethane	1.2	< 1.2	U
630-20-6	1,1,1,2-Tetrachloroethane	1.2	< 1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	5.8	< 5.8	U
96-18-4	1,2,3-Trichloropropane	2.3	< 2.3	U
110-57-6	trans-1,4-Dichloro-2-butene	5.8	< 5.8	U
108-67-8	1,3,5-Trimethylbenzene	1.2	< 1.2	U

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260C

Page 2 of 2

**ANALYTICAL  
RESOURCES  
INCORPORATED**

**Sample ID: B-1  
REANALYSIS**

Lab Sample ID: WD47A

QC Report No: WD47-Landau

LIMS ID: 13-2965

Project: Heavens Supply

Matrix: Soil

583002.050.056

Date Analyzed: 02/12/13 16:48

CAS Number	Analyte	RL	Result	Q
95-63-6	1,2,4-Trimethylbenzene	1.2	< 1.2	U
87-68-3	Hexachlorobutadiene	5.8	< 5.8	U
106-93-4	1,2-Dibromoethane	1.2	< 1.2	U
74-97-5	Bromochloromethane	1.2	< 1.2	U
594-20-7	2,2-Dichloropropane	1.2	< 1.2	U
142-28-9	1,3-Dichloropropane	1.2	< 1.2	U
98-82-8	Isopropylbenzene	1.2	< 1.2	U
103-65-1	n-Propylbenzene	1.2	< 1.2	U
108-86-1	Bromobenzene	1.2	< 1.2	U
95-49-8	2-Chlorotoluene	1.2	< 1.2	U
106-43-4	4-Chlorotoluene	1.2	< 1.2	U
98-06-6	tert-Butylbenzene	1.2	< 1.2	U
135-98-8	sec-Butylbenzene	1.2	< 1.2	U
99-87-6	4-Isopropyltoluene	1.2	< 1.2	U
104-51-8	n-Butylbenzene	1.2	< 1.2	U
120-82-1	1,2,4-Trichlorobenzene	5.8	< 5.8	U
91-20-3	Naphthalene	5.8	< 5.8	U
87-61-6	1,2,3-Trichlorobenzene	5.8	< 5.8	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	110%
d8-Toluene	99.3%
Bromofluorobenzene	74.6%
d4-1,2-Dichlorobenzene	106%

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

Page 1 of 2

**ANALYTICAL  
RESOURCES  
INCORPORATED**

**Sample ID: B-2  
SAMPLE**

Lab Sample ID: WD47B

QC Report No: WD47-Landau

LIMS ID: 13-2966

Project: Heavens Supply

Matrix: Soil

583002.050.056

Data Release Authorized:

Date Sampled: 02/11/13

Reported: 02/13/13

Date Received: 02/11/13

Instrument/Analyst: NT5/PAB  
Date Analyzed: 02/12/13 15:42Sample Amount: 4.90 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: 18.1%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
<b>67-64-1</b>	<b>Acetone</b>	<b>5.1</b>	<b>98</b>	
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>5.1</b>	<b>5.4</b>	
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.1	< 5.1	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.1	< 5.1	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.1	< 5.1	U
591-78-6	2-Hexanone	5.1	< 5.1	U
<b>127-18-4</b>	<b>Tetrachloroethene</b>	<b>1.0</b>	<b>3.0</b>	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
179601-23-1	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	51	< 51	U
74-88-4	Iodomethane	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.1	< 5.1	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.1	< 5.1	U
96-18-4	1,2,3-Trichloropropene	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.1	< 5.1	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

Page 2 of 2

**ANALYTICAL  
RESOURCES  
INCORPORATED**

**Sample ID: B-2  
SAMPLE**

Lab Sample ID: WD47B

QC Report No: WD47-Landau

LIMS ID: 13-2966

Project: Heavens Supply

Matrix: Soil

583002.050.056

Date Analyzed: 02/12/13 15:42

CAS Number	Analyte	RL	Result	Q
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.1	< 5.1	U
106-93-4	1,2-Dibromoethane	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.1	< 5.1	U
91-20-3	Naphthalene	5.1	< 5.1	U
87-61-6	1,2,3-Trichlorobenzene	5.1	< 5.1	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	114%
d8-Toluene	102%
Bromofluorobenzene	92.2%
d4-1,2-Dichlorobenzene	101%

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

Page 1 of 2

Sample ID: B-3  
SAMPLE

Lab Sample ID: WD47C

LIMS ID: 13-2967

Matrix: Soil

Data Release Authorized:

Reported: 02/13/13

QC Report No: WD47-Landau

Project: Heavens Supply

583002.050.056

Date Sampled: 02/11/13

Date Received: 02/11/13

Instrument/Analyst: NT5/PAB

Date Analyzed: 02/12/13 16:06

Sample Amount: 4.46 g-dry-wt

Purge Volume: 5.0 mL

Moisture: 14.0%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.1	< 1.1	U
74-83-9	Bromomethane	1.1	< 1.1	U
75-01-4	Vinyl Chloride	1.1	< 1.1	U
75-00-3	Chloroethane	1.1	< 1.1	U
75-09-2	Methylene Chloride	2.2	< 2.2	U
<b>67-64-1</b>	<b>Acetone</b>	<b>5.6</b>	<b>180</b>	
75-15-0	Carbon Disulfide	1.1	< 1.1	U
75-35-4	1,1-Dichloroethene	1.1	< 1.1	U
75-34-3	1,1-Dichloroethane	1.1	< 1.1	U
156-60-5	trans-1,2-Dichloroethene	1.1	< 1.1	U
156-59-2	cis-1,2-Dichloroethene	1.1	< 1.1	U
67-66-3	Chloroform	1.1	< 1.1	U
107-06-2	1,2-Dichloroethane	1.1	< 1.1	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>5.6</b>	<b>14</b>	
71-55-6	1,1,1-Trichloroethane	1.1	< 1.1	U
56-23-5	Carbon Tetrachloride	1.1	< 1.1	U
108-05-4	Vinyl Acetate	5.6	< 5.6	U
75-27-4	Bromodichloromethane	1.1	< 1.1	U
78-87-5	1,2-Dichloropropane	1.1	< 1.1	U
10061-01-5	cis-1,3-Dichloropropene	1.1	< 1.1	U
79-01-6	Trichloroethene	1.1	< 1.1	U
124-48-1	Dibromochloromethane	1.1	< 1.1	U
79-00-5	1,1,2-Trichloroethane	1.1	< 1.1	U
<b>71-43-2</b>	<b>Benzene</b>	<b>1.1</b>	<b>1.8</b>	
10061-02-6	trans-1,3-Dichloropropene	1.1	< 1.1	U
110-75-8	2-Chloroethylvinylether	5.6	< 5.6	U
75-25-2	Bromoform	1.1	< 1.1	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.6	< 5.6	U
591-78-6	2-Hexanone	5.6	< 5.6	U
127-18-4	Tetrachloroethene	1.1	< 1.1	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	< 1.1	U
<b>108-88-3</b>	<b>Toluene</b>	<b>1.1</b>	<b>3.2</b>	
108-90-7	Chlorobenzene	1.1	< 1.1	U
100-41-4	Ethylbenzene	1.1	< 1.1	U
100-42-5	Styrene	1.1	< 1.1	U
75-69-4	Trichlorofluoromethane	1.1	< 1.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.2	< 2.2	U
<b>179601-23-1</b>	<b>m,p-Xylene</b>	<b>1.1</b>	<b>2.3</b>	
95-47-6	o-Xylene	1.1	< 1.1	U
95-50-1	1,2-Dichlorobenzene	1.1	< 1.1	U
541-73-1	1,3-Dichlorobenzene	1.1	< 1.1	U
106-46-7	1,4-Dichlorobenzene	1.1	< 1.1	U
107-02-8	Acrolein	5.6	< 5.6	U
74-88-4	Iodomethane	1.1	< 1.1	U
74-96-4	Bromoethane	2.2	< 2.2	U
107-13-1	Acrylonitrile	5.6	< 5.6	U
563-58-6	1,1-Dichloropropene	1.1	< 1.1	U
74-95-3	Dibromomethane	1.1	< 1.1	U
630-20-6	1,1,1,2-Tetrachloroethane	1.1	< 1.1	U
96-12-8	1,2-Dibromo-3-chloropropane	5.6	< 5.6	U
96-18-4	1,2,3-Trichloropropene	2.2	< 2.2	U
110-57-6	trans-1,4-Dichloro-2-butene	5.6	< 5.6	U
108-67-8	1,3,5-Trimethylbenzene	1.1	< 1.1	U

## ORGANICS ANALYSIS DATA SHEET

Volatile s by Purge &amp; Trap GC/MS-Method SW8260C

Page 2 of 2

**ANALYTICAL  
RESOURCES  
INCORPORATED**


Lab Sample ID: WD47C

LIMS ID: 13-2967

Matrix: Soil

Date Analyzed: 02/12/13 16:06

**Sample ID: B-3  
SAMPLE**

QC Report No: WD47-Landau

Project: Heavens Supply

583002.050.056

<b>CAS Number</b>	<b>Analyte</b>	<b>RL</b>	<b>Result</b>	<b>Q</b>
<b>95-63-6</b>	<b>1,2,4-Trimethylbenzene</b>	<b>1.1</b>	<b>1.5</b>	
87-68-3	Hexachlorobutadiene	5.6	< 5.6	U
106-93-4	1,2-Dibromoethane	1.1	< 1.1	U
74-97-5	Bromochloromethane	1.1	< 1.1	U
594-20-7	2,2-Dichloropropane	1.1	< 1.1	U
142-28-9	1,3-Dichloropropane	1.1	< 1.1	U
98-82-8	Isopropylbenzene	1.1	< 1.1	U
103-65-1	n-Propylbenzene	1.1	< 1.1	U
108-86-1	Bromobenzene	1.1	< 1.1	U
95-49-8	2-Chlorotoluene	1.1	< 1.1	U
106-43-4	4-Chlorotoluene	1.1	< 1.1	U
98-06-6	tert-Butylbenzene	1.1	< 1.1	U
135-98-8	sec-Butylbenzene	1.1	< 1.1	U
99-87-6	4-Isopropyltoluene	1.1	< 1.1	U
104-51-8	n-Butylbenzene	1.1	< 1.1	U
120-82-1	1,2,4-Trichlorobenzene	5.6	< 5.6	U
91-20-3	Naphthalene	5.6	< 5.6	U
87-61-6	1,2,3-Trichlorobenzene	5.6	< 5.6	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	114%
d8-Toluene	101%
Bromofluorobenzene	85.0%
d4-1,2-Dichlorobenzene	98.2%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**  
Page 1 of 2

**Sample ID: MB-021213A**  
**METHOD BLANK**

Lab Sample ID: MB-021213A  
LIMS ID: 13-2965  
Matrix: Soil  
Data Release Authorized: ✓  
Reported: 02/13/13

QC Report No: WD47-Landau  
Project: Heavens Supply  
583002.050.056

Date Sampled: NA  
Date Received: NA

Instrument/Analyst: NT5/PAB  
Date Analyzed: 02/12/13 14:09

Sample Amount: 5.00 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: NA

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
179601-23-1	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	50	< 50	U
74-88-4	Iodomethane	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropene	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

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**Sample ID: MB-021213A**

**METHOD BLANK**

Lab Sample ID: MB-021213A

QC Report No: WD47-Landau

LIMS ID: 13-2965

Project: Heavens Supply

Matrix: Soil

583002.050.056

Date Analyzed: 02/12/13 14:09

CAS Number	Analyte	RL	Result	Q
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	1,2-Dibromoethane	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0	U
91-20-3	Naphthalene	5.0	< 5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	106%
d8-Toluene	101%
Bromofluorobenzene	99.6%
d4-1,2-Dichlorobenzene	101%

## VOA SURROGATE RECOVERY SUMMARY



Matrix: Soil

QC Report No: WD47-Landau  
 Project: Heavens Supply  
 583002.050.056

<b>ARI ID</b>	<b>Client ID</b>	<b>Level</b>	<b>DCE</b>	<b>TOL</b>	<b>BFB</b>	<b>DCB</b>	<b>TOT</b>	<b>OUT</b>
MB-021213A	Method Blank	Low	106%	101%	99.6%	101%	0	
LCS-021213A	Lab Control	Low	106%	102%	103%	99.7%	0	
LCSD-021213A	Lab Control Dup	Low	107%	102%	102%	100%	0	
WD47A	B-1	Low	108%	99.2%	72.0%*	104%	1	
WD47ARE	B-1	Low	110%	99.3%	74.6%*	106%	1	
WD47B	B-2	Low	114%	102%	92.2%	101%	0	
WD47C	B-3	Low	114%	101%	85.0%	98.2%	0	

**LCS/MB LIMITS****QC LIMITS****SW8260C**

	Low	Med	Low	Med
(DCE) = d4-1,2-Dichloroethane	80-122	76-120	80-149	69-120
(TOL) = d8-Toluene	80-120	80-120	77-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120	80-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	80-120	80-120

Log Number Range: 13-2965 to 13-2967

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**  
Page 1 of 2

Lab Sample ID: LCS-021213A

LIMS ID: 13-2965

Matrix: Soil

Data Release Authorized: *B*

Reported: 02/13/13

Sample ID: LCS-021213A

**LAB CONTROL SAMPLE**

Instrument/Analyst LCS: NT5/PAB

LCSD: NT5/PAB

Date Analyzed LCS: 02/12/13 13:21

LCSD: 02/12/13 13:45

QC Report No: WD47-Landau

Project: Heavens Supply  
583002.050.056

Date Sampled: NA

Date Received: NA

Sample Amount LCS: 5.00 g-dry-wt

LCSD: 5.00 g-dry-wt

Purge Volume LCS: 5.0 mL

LCSD: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	48.3	50.0	96.6%	50.0	50.0	100%	3.5%
Bromomethane	41.9	50.0	83.8%	43.0	50.0	86.0%	2.6%
Vinyl Chloride	52.6	50.0	105%	54.9	50.0	110%	4.3%
Chloroethane	44.7	50.0	89.4%	49.5	50.0	99.0%	10.2%
Methylene Chloride	51.4	50.0	103%	64.5	50.0	129%	22.6%
Acetone	251	250	100%	234	250	93.6%	7.0%
Carbon Disulfide	53.5	50.0	107%	60.3	50.0	121%	12.0%
1,1-Dichloroethene	51.3	50.0	103%	58.2	50.0	116%	12.6%
1,1-Dichloroethane	49.2	50.0	98.4%	51.4	50.0	103%	4.4%
trans-1,2-Dichloroethene	50.1	50.0	100%	54.2	50.0	108%	7.9%
cis-1,2-Dichloroethene	49.4	50.0	98.8%	51.0	50.0	102%	3.2%
Chloroform	50.9	50.0	102%	52.6	50.0	105%	3.3%
1,2-Dichloroethane	49.1	50.0	98.2%	49.4	50.0	98.8%	0.6%
2-Butanone	261	250	104%	265	250	106%	1.5%
1,1,1-Trichloroethane	51.7	50.0	103%	54.2	50.0	108%	4.7%
Carbon Tetrachloride	49.8	50.0	99.6%	51.6	50.0	103%	3.6%
Vinyl Acetate	49.2	50.0	98.4%	50.2	50.0	100%	2.0%
Bromodichloromethane	48.9	50.0	97.8%	49.7	50.0	99.4%	1.6%
1,2-Dichloropropane	48.5	50.0	97.0%	50.3	50.0	101%	3.6%
cis-1,3-Dichloropropene	50.3	50.0	101%	51.2	50.0	102%	1.8%
Trichloroethene	49.8	50.0	99.6%	51.8	50.0	104%	3.9%
Dibromochloromethane	48.7	50.0	97.4%	48.9	50.0	97.8%	0.4%
1,1,2-Trichloroethane	48.5	50.0	97.0%	49.3	50.0	98.6%	1.6%
Benzene	50.7	50.0	101%	52.2	50.0	104%	2.9%
trans-1,3-Dichloropropene	49.8	50.0	99.6%	51.2	50.0	102%	2.8%
2-Chloroethylvinylether	50.1	50.0	100%	51.3	50.0	103%	2.4%
Bromoform	48.1	50.0	96.2%	49.0	50.0	98.0%	1.9%
4-Methyl-2-Pentanone (MIBK)	250	250	100%	256	250	102%	2.4%
2-Hexanone	259	250	104%	261	250	104%	0.8%
Tetrachloroethene	49.8	50.0	99.6%	50.5	50.0	101%	1.4%
1,1,2,2-Tetrachloroethane	48.9	50.0	97.8%	49.1	50.0	98.2%	0.4%
Toluene	49.0	50.0	98.0%	50.9	50.0	102%	3.8%
Chlorobenzene	49.6	50.0	99.2%	49.9	50.0	99.8%	0.6%
Ethylbenzene	53.1	50.0	106%	54.2	50.0	108%	2.1%
Styrene	52.6	50.0	105%	53.2	50.0	106%	1.1%
Trichlorofluoromethane	47.6	50.0	95.2%	47.6	50.0	95.2%	0.0%
1,1,2-Trichloro-1,2,2-trifluoroetha	53.4	50.0	107%	61.3	50.0	123%	13.8%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

Page 2 of 2

**Sample ID: LCS-021213A**

**LAB CONTROL SAMPLE**

Lab Sample ID: LCS-021213A

LIMS ID: 13-2965

Matrix: Soil

QC Report No: WD47-Landau

Project: Heavens Supply

583002.050.056

<b>Analyte</b>	<b>LCS</b>	<b>Spike</b>	<b>LCS</b>	<b>Spike</b>	<b>LCSD</b>	<b>RPD</b>
		<b>Added-LCS</b>	<b>Recovery</b>	<b>Added-LCSD</b>	<b>Recovery</b>	
m,p-Xylene	104	100	104%	106	100	106%
o-Xylene	51.2	50.0	102%	52.0	50.0	104%
1,2-Dichlorobenzene	49.5	50.0	99.0%	49.4	50.0	98.8%
1,3-Dichlorobenzene	51.0	50.0	102%	51.1	50.0	102%
1,4-Dichlorobenzene	51.2	50.0	102%	50.7	50.0	101%
Acrolein	234	250	93.6%	299	250	120%
Iodomethane	72.0	Q	50.0	144%	73.7	Q
Bromoethane	49.8	50.0	99.6%	57.8	50.0	116%
Acrylonitrile	46.6	50.0	93.2%	49.1	50.0	98.2%
1,1-Dichloropropene	51.6	50.0	103%	53.1	50.0	106%
Dibromomethane	48.5	50.0	97.0%	48.7	50.0	97.4%
1,1,1,2-Tetrachloroethane	48.3	50.0	96.6%	48.7	50.0	97.4%
1,2-Dibromo-3-chloropropane	48.4	50.0	96.8%	47.9	50.0	95.8%
1,2,3-Trichloropropane	48.0	50.0	96.0%	48.6	50.0	97.2%
trans-1,4-Dichloro-2-butene	53.8	50.0	108%	53.3	50.0	107%
1,3,5-Trimethylbenzene	53.7	50.0	107%	54.8	50.0	110%
1,2,4-Trimethylbenzene	54.4	50.0	109%	55.3	50.0	111%
Hexachlorobutadiene	50.2	50.0	100%	51.8	50.0	104%
1,2-Dibromoethane	48.2	50.0	96.4%	48.9	50.0	97.8%
Bromochloromethane	49.3	50.0	98.6%	50.5	50.0	101%
2,2-Dichloropropane	43.6	50.0	87.2%	53.8	50.0	108%
1,3-Dichloropropane	50.0	50.0	100%	49.8	50.0	99.6%
Isopropylbenzene	53.6	50.0	107%	55.3	50.0	111%
n-Propylbenzene	55.1	50.0	110%	56.0	50.0	112%
Bromobenzene	47.8	50.0	95.6%	48.5	50.0	97.0%
2-Chlorotoluene	52.0	50.0	104%	53.2	50.0	106%
4-Chlorotoluene	53.8	50.0	108%	54.0	50.0	108%
tert-Butylbenzene	52.1	50.0	104%	54.1	50.0	108%
sec-Butylbenzene	55.0	50.0	110%	56.9	50.0	114%
4-Isopropyltoluene	55.3	50.0	111%	56.5	50.0	113%
n-Butylbenzene	57.2	50.0	114%	58.0	50.0	116%
1,2,4-Trichlorobenzene	51.3	50.0	103%	50.6	50.0	101%
Naphthalene	50.0	50.0	100%	50.0	50.0	100%
1,2,3-Trichlorobenzene	48.3	50.0	96.6%	48.2	50.0	96.4%

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	<b>LCS</b>	<b>LCSD</b>
d4-1,2-Dichloroethane	106%	107%
d8-Toluene	102%	102%
Bromofluorobenzene	103%	102%
d4-1,2-Dichlorobenzene	99.7%	100%



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

February 26, 2013

Piper Roelen  
Landau Associates, Inc.  
130 2<sup>nd</sup> Avenue S.  
Edmonds, WA 98020

**RE: Project No: 583002.050.056**  
**Project Name: Heaven's Supply**  
**ARI Job No: WD75**

Dear Piper:

Please find enclosed the Chain-of-Custody (COC) records, sample receipt documentation, and the final results from the project referenced above. Analytical Resources, Inc. (ARI) accepted six soil samples in good condition on February 13, 2013. There were no discrepancies between container labels and Chain-of-Custody sample IDs. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for VOCs, as requested on the COC.

The 2/20/13 CCAL is out of control low for all associated FORM III "Q" flagged analytes. All associated samples that contain analyte have been flagged with a "Q" qualifier.

The 2/21/13 CCAL is out of control low for Bromomethane and out of control high for Chloroethane all associated FORM III "Q" flagged analytes. All associated samples that contain analyte have been flagged with a "Q" qualifier.

There were no other anomalies associated with the analyses of the samples.

A copy of this report and all corresponding raw data will remain on file electronically with ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

A handwritten signature in black ink, appearing to read "Kelly Bottem".

Kelly Bottem  
Client Services Manager  
(206) 695-6211  
[kellyb@arilabs.com](mailto:kellyb@arilabs.com)



**LANDAU  
ASSOCIATES**

- Seattle/Edmonds** (425) 778-0907
  - Tacoma** (253) 926-2493
  - Spokane** (509) 327-9737
  - Portland** (503) 542-1080
  -

Date: 2/3/13

Page 1 of

## **Chain-of-Custody Record**

WD75

Project Information						Testing Parameters					
Project Name <u>HEAVENS SUPPLY</u>			Project No. <u>583002.050.056</u>								
Project Location/Event <u>SMITH DRIVEWAY EXCAVATION</u>											
Sampler's Name <u>MATT MORONEY</u>											
Project Contact <u>PIPER ROELEN</u>											
Send Results To <u>PIPER ROELEN, M. MORONEY, A. HALVORSEN</u>											
Sample I.D.	Date	Time	Matrix	No. of Containers		Observations/Comments					
W - WALL	2/12/13	1400	SOIL	4	X X	X. Allow water samples to settle, collect aliquot from clear portion					
W - BASE	2/12/13	1410	SOIL	4	X X	X. NWTPH-Dx - run acid wash/silica gel cleanup					
S - WALL - W	2/12/13	1430	SOIL	4	X X						
S - WALL - E	2/12/13	1500	SOIL	4	X X						
E - WALL	2/13/13	0930	SOIL	4	X X						
E - BASE	2/12/13	1510	SOIL	4	X X	run samples standardized to product					
TRIP BLANKS				2	X X	Analyze for EPH if no specific product identified					
						VOC/BTEX/VPH (soil):					
						<input type="checkbox"/> non-preserved					
						<input type="checkbox"/> preserved w/methanol					
						<input type="checkbox"/> preserved w/sodium bisulfate					
						<input type="checkbox"/> Freeze upon receipt					
						<input type="checkbox"/> Dissolved metal water samples field filtered					
						Other _____					
Special Shipment/Handling or Storage Requirements						Method of Shipment					
Relinquished by <u>Matt Moroney</u>		Received by <u>Taylor Stroeter</u>		Relinquished by		Received by					
Signature <u>MATT MORONEY</u>		Signature <u>Taylor Stroeter</u>		Signature		Signature					
Printed Name <u>LANDAU ASSOCIATES</u>		Printed Name <u>A.W.J.</u>		Printed Name		Printed Name					
Company		Company		Company		Company					
Date <u>2/13/13</u> Time <u>1440</u>		Date <u>2-13-13</u> Time <u>1440</u>		Date _____ Time _____		Date _____ Time _____					
Turnaround Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/> _____											



# Cooler Receipt Form

ARI Client Lan dau

COC No(s) \_\_\_\_\_ NA

Assigned ARI Job No W075

## Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?  YES  NO

Were custody papers included with the cooler?  YES  NO

Were custody papers properly filled out (ink, signed, etc)  YES  NO

Temperature of Cooler(s) (°C) (recommended 2 0-6 0 °C for chemistry) 5.9

If cooler temperature is out of compliance fill out form 00070F

Cooler Accepted by TC Date 7-13-13 Time 14:10 Temp Gun ID# 90877912

*Complete custody forms and attach all shipping documents*

## Log-In Phase:

Was a temperature blank included in the cooler?  YES  NO

What kind of packing material was used?  Bubble Wrap  Wet Ice  Gel Packs  Baggies  Foam Block  Paper  Other:  NA  YES  NO

Was sufficient ice used (if appropriate)?  NA  YES  NO

Were all bottles sealed in individual plastic bags?  YES  NO

Did all bottles arrive in good condition (unbroken)?  YES  NO

Were all bottle labels complete and legible?  YES  NO

Did the number of containers listed on COC match with the number of containers received?  YES  NO

Did all bottle labels and tags agree with custody papers?  YES  NO

Were all bottles used correct for the requested analyses?  YES  NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)  NA  YES  NO

Were all VOC vials free of air bubbles?  NA  YES  NO

Was sufficient amount of sample sent in each bottle?  YES  NO

Date VOC Trip Blank was made at ARI 7-7-13  NA  Split by: 7-7-13

Was Sample Split by ARI  YES Date/Time: \_\_\_\_\_ Equipment: \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by TS Date: 7-13-13 Time: 14:53

**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

## Additional Notes, Discrepancies, & Resolutions:

By	Date	Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm	Small → "sm" Peabubbles → "pb" Large → "lg" Headspace → "hs"

# Sample ID Cross Reference Report



ARI Job No: WD75

Client: Landau

Project Event: 583002.050.056

Project Name: Heavens Supply

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. W-WALL	WD75A	13-3090	Soil	02/12/13 14:00	02/13/13 14:40
2. W-BASE	WD75B	13-3091	Soil	02/12/13 14:10	02/13/13 14:40
3. S-WALL-W	WD75C	13-3092	Soil	02/12/13 14:30	02/13/13 14:40
4. S-WALL-E	WD75D	13-3093	Soil	02/12/13 15:00	02/13/13 14:40
5. E-WALL	WD75E	13-3094	Soil	02/13/13 09:30	02/13/13 14:40
6. E-Base	WD75F	13-3095	Soil	02/12/13 15:10	02/13/13 14:40
7. Trip Blanks	WD75G	13-3096	Water	02/12/13	02/13/13 14:40

Printed 02/13/13 Page 1 of 1

WD75 : 66004

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

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**ANALYTICAL  
RESOURCES  
INCORPORATED**


Lab Sample ID: WD75A

LIMS ID: 13-3090

Matrix: Soil

Data Release Authorized:

Reported: 02/22/13

Instrument/Analyst: NT5/PAB  
Date Analyzed: 02/20/13 14:29Sample ID: W-WALL  
SAMPLE
 QC Report No: WD75-Landau  
 Project: Heavens Supply  
 583002.050.056  
 Date Sampled: 02/12/13  
 Date Received: 02/13/13

 Sample Amount: 5.02 g-dry-wt  
 Purge Volume: 5.0 mL  
 Moisture: 14.4%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>2.0</b>	<b>2.0</b>	
<b>67-64-1</b>	<b>Acetone</b>	<b>5.0</b>	<b>82</b>	
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
<b>127-18-4</b>	<b>Tetrachloroethene</b>	<b>1.0</b>	<b>19</b>	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
179601-23-1	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	50	< 50	U
74-88-4	Iodomethane	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropane	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**  
Page 2 of 2

**Sample ID: W-WALL  
SAMPLE**

Lab Sample ID: WD75A

QC Report No: WD75-Landau

LIMS ID: 13-3090

Project: Heavens Supply

Matrix: Soil

583002.050.056

Date Analyzed: 02/20/13 14:29

CAS Number	Analyte	RL	Result	Q
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	1,2-Dibromoethane	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0	U
91-20-3	Naphthalene	5.0	< 5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	107%
d8-Toluene	99.3%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	102%

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

Page 1 of 2

**ANALYTICAL  
RESOURCES  
INCORPORATED**


Lab Sample ID: WD75B

LIMS ID: 13-3091

Matrix: Soil

Data Release Authorized:

Reported: 02/22/13

**Sample ID: W-BASE  
SAMPLE**

QC Report No: WD75-Landau  
 Project: Heavens Supply  
 583002.050.056  
 Date Sampled: 02/12/13  
 Date Received: 02/13/13

Instrument/Analyst: NT5/PAB  
 Date Analyzed: 02/20/13 14:53

Sample Amount: 5.06 g-dry-wt  
 Purge Volume: 5.0 mL  
 Moisture: 11.4%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>2.0</b>	<b>2.0</b>	
<b>67-64-1</b>	<b>Acetone</b>	<b>4.9</b>	<b>59</b>	
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	4.9	< 4.9	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	4.9	< 4.9	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	4.9	< 4.9	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.9	< 4.9	U
591-78-6	2-Hexanone	4.9	< 4.9	U
<b>127-18-4</b>	<b>Tetrachloroethene</b>	<b>1.0</b>	<b>61</b>	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
179601-23-1	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	49	< 49	U
74-88-4	Iodomethane	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	4.9	< 4.9	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	4.9	< 4.9	U
96-18-4	1,2,3-Trichloropropene	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	4.9	< 4.9	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

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**ANALYTICAL  
RESOURCES  
INCORPORATED**

**Sample ID: W-BASE  
SAMPLE**

Lab Sample ID: WD75B

QC Report No: WD75-Landau

LIMS ID: 13-3091

Project: Heavens Supply

Matrix: Soil

583002.050.056

Date Analyzed: 02/20/13 14:53

CAS Number	Analyte	RL	Result	Q
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	4.9	< 4.9	U
106-93-4	1,2-Dibromoethane	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	4.9	< 4.9	U
91-20-3	Naphthalene	4.9	< 4.9	U
87-61-6	1,2,3-Trichlorobenzene	4.9	< 4.9	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	112%
d8-Toluene	102%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	99.6%

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

Page 1 of 2

**ANALYTICAL  
RESOURCES  
INCORPORATED**


Lab Sample ID: WD75C

LIMS ID: 13-3092

Matrix: Soil

Data Release Authorized:

Reported: 02/22/13

Instrument/Analyst: NT5/PAB  
Date Analyzed: 02/20/13 15:17Sample ID: S-WALL-W  
SAMPLE
 QC Report No: WD75-Landau  
 Project: Heavens Supply  
 583002.050.056  
 Date Sampled: 02/12/13  
 Date Received: 02/13/13

 Sample Amount: 5.07 g-dry-wt  
 Purge Volume: 5.0 mL  
 Moisture: 15.4%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
<b>67-64-1</b>	<b>Acetone</b>	<b>4.9</b>	<b>120</b>	
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	4.9	< 4.9	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	4.9	< 4.9	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	4.9	< 4.9	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.9	< 4.9	U
591-78-6	2-Hexanone	4.9	< 4.9	U
<b>127-18-4</b>	<b>Tetrachloroethene</b>	<b>1.0</b>	<b>210</b>	<b>E</b>
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
179601-23-1	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	49	< 49	U
74-88-4	Iodomethane	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	4.9	< 4.9	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	4.9	< 4.9	U
96-18-4	1,2,3-Trichloropropane	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	4.9	< 4.9	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260C

Page 2 of 2

**ANALYTICAL  
RESOURCES  
INCORPORATED**


Lab Sample ID: WD75C

LIMS ID: 13-3092

Matrix: Soil

Date Analyzed: 02/20/13 15:17

**Sample ID: S-WALL-W  
SAMPLE**

QC Report No: WD75-Landau

Project: Heavens Supply

583002.050.056

CAS Number	Analyte	RL	Result	Q
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	4.9	< 4.9	U
106-93-4	1,2-Dibromoethane	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	4.9	< 4.9	U
91-20-3	Naphthalene	4.9	< 4.9	U
87-61-6	1,2,3-Trichlorobenzene	4.9	< 4.9	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	96.3%
d8-Toluene	98.3%
Bromofluorobenzene	95.4%
d4-1,2-Dichlorobenzene	102%

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

Page 1 of 2

**ANALYTICAL  
RESOURCES  
INCORPORATED**

**Sample ID: S-WALL-W  
REANALYSIS**

Lab Sample ID: WD75C

QC Report No: WD75-Landau

LIMS ID: 13-3092

Project: Heavens Supply

Matrix: Soil

583002.050.056

Data Release Authorized:

Date Sampled: 02/12/13

Reported: 02/22/13

Date Received: 02/13/13

Instrument/Analyst: NT5/PAB

Sample Amount: 84.0 mg-dry-wt

Date Analyzed: 02/21/13 15:56

Purge Volume: 5.0 mL

Moisture: 15.4%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	60	< 60	U
74-83-9	Bromomethane	60	< 60	U
75-01-4	Vinyl Chloride	60	< 60	U
75-00-3	Chloroethane	60	< 60	U
75-09-2	Methylene Chloride	120	< 120	U
67-64-1	Acetone	300	< 300	U
75-15-0	Carbon Disulfide	60	< 60	U
75-35-4	1,1-Dichloroethene	60	< 60	U
75-34-3	1,1-Dichloroethane	60	< 60	U
156-60-5	trans-1,2-Dichloroethene	60	< 60	U
156-59-2	cis-1,2-Dichloroethene	60	< 60	U
67-66-3	Chloroform	60	< 60	U
107-06-2	1,2-Dichloroethane	60	< 60	U
78-93-3	2-Butanone	300	< 300	U
71-55-6	1,1,1-Trichloroethane	60	< 60	U
56-23-5	Carbon Tetrachloride	60	< 60	U
108-05-4	Vinyl Acetate	300	< 300	U
75-27-4	Bromodichloromethane	60	< 60	U
78-87-5	1,2-Dichloropropane	60	< 60	U
10061-01-5	cis-1,3-Dichloropropene	60	< 60	U
79-01-6	Trichloroethene	60	< 60	U
124-48-1	Dibromochloromethane	60	< 60	U
79-00-5	1,1,2-Trichloroethane	60	< 60	U
71-43-2	Benzene	60	< 60	U
10061-02-6	trans-1,3-Dichloropropene	60	< 60	U
110-75-8	2-Chloroethylvinylether	300	< 300	U
75-25-2	Bromoform	60	< 60	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	300	< 300	U
591-78-6	2-Hexanone	300	< 300	U
<b>127-18-4</b>	<b>Tetrachloroethene</b>	<b>60</b>	<b>1,500</b>	
79-34-5	1,1,2,2-Tetrachloroethane	60	< 60	U
108-88-3	Toluene	60	< 60	U
108-90-7	Chlorobenzene	60	< 60	U
100-41-4	Ethylbenzene	60	< 60	U
100-42-5	Styrene	60	< 60	U
75-69-4	Trichlorofluoromethane	60	< 60	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	120	< 120	U
179601-23-1	m,p-Xylene	60	< 60	U
95-47-6	o-Xylene	60	< 60	U
95-50-1	1,2-Dichlorobenzene	60	< 60	U
541-73-1	1,3-Dichlorobenzene	60	< 60	U
106-46-7	1,4-Dichlorobenzene	60	< 60	U
107-02-8	Acrolein	3,000	< 3,000	U
74-88-4	Iodomethane	60	< 60	U
74-96-4	Bromoethane	120	< 120	U
107-13-1	Acrylonitrile	300	< 300	U
563-58-6	1,1-Dichloropropene	60	< 60	U
74-95-3	Dibromomethane	60	< 60	U
630-20-6	1,1,1,2-Tetrachloroethane	60	< 60	U
96-12-8	1,2-Dibromo-3-chloropropane	300	< 300	U
96-18-4	1,2,3-Trichloropropane	120	< 120	U
110-57-6	trans-1,4-Dichloro-2-butene	300	< 300	U
108-67-8	1,3,5-Trimethylbenzene	60	< 60	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**  
Page 2 of 2

**Sample ID: S-WALL-W  
REANALYSIS**

Lab Sample ID: WD75C

QC Report No: WD75-Landau

LIMS ID: 13-3092

Project: Heavens Supply

Matrix: Soil

583002.050.056

Date Analyzed: 02/21/13 15:56

CAS Number	Analyte	RL	Result	Q
95-63-6	1,2,4-Trimethylbenzene	60	< 60	U
87-68-3	Hexachlorobutadiene	300	< 300	U
106-93-4	1,2-Dibromoethane	60	< 60	U
74-97-5	Bromochloromethane	60	< 60	U
594-20-7	2,2-Dichloropropane	60	< 60	U
142-28-9	1,3-Dichloropropane	60	< 60	U
98-82-8	Isopropylbenzene	60	< 60	U
103-65-1	n-Propylbenzene	60	< 60	U
108-86-1	Bromobenzene	60	< 60	U
95-49-8	2-Chlorotoluene	60	< 60	U
106-43-4	4-Chlorotoluene	60	< 60	U
98-06-6	tert-Butylbenzene	60	< 60	U
135-98-8	sec-Butylbenzene	60	< 60	U
99-87-6	4-Isopropyltoluene	60	< 60	U
104-51-8	n-Butylbenzene	60	< 60	U
120-82-1	1,2,4-Trichlorobenzene	300	< 300	U
91-20-3	Naphthalene	300	< 300	U
87-61-6	1,2,3-Trichlorobenzene	300	< 300	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	109%
d8-Toluene	102%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	100%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

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**ANALYTICAL  
RESOURCES  
INCORPORATED**


Lab Sample ID: WD75D

LIMS ID: 13-3093

Matrix: Soil

Data Release Authorized: ✓

Reported: 02/22/13

**Sample ID: S-WALL-E  
SAMPLE**

 QC Report No: WD75-Landau  
 Project: Heavens Supply  
 583002.050.056  
 Date Sampled: 02/12/13  
 Date Received: 02/13/13

 Instrument/Analyst: NT5/PAB  
 Date Analyzed: 02/20/13 15:41

 Sample Amount: 4.85 g-dry-wt  
 Purge Volume: 5.0 mL  
 Moisture: 14.5%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.1	< 2.1	U
67-64-1	Acetone	5.2	< 5.2	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.2	< 5.2	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.2	< 5.2	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.2	< 5.2	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.2	< 5.2	U
591-78-6	2-Hexanone	5.2	< 5.2	U
<b>127-18-4</b>	<b>Tetrachloroethene</b>	<b>1.0</b>	<b>30</b>	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.1	< 2.1	U
179601-23-1	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	52	< 52	U
74-88-4	Iodomethane	1.0	< 1.0	U
74-96-4	Bromoethane	2.1	< 2.1	U
107-13-1	Acrylonitrile	5.2	< 5.2	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.2	< 5.2	U
96-18-4	1,2,3-Trichloropropane	2.1	< 2.1	U
110-57-6	trans-1,4-Dichloro-2-butene	5.2	< 5.2	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260C

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**ANALYTICAL  
RESOURCES  
INCORPORATED**

**Sample ID: S-WALL-E  
SAMPLE**

Lab Sample ID: WD75D

QC Report No: WD75-Landau

LIMS ID: 13-3093

Project: Heavens Supply

Matrix: Soil

583002.050.056

Date Analyzed: 02/20/13 15:41

CAS Number	Analyte	RL	Result	Q
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.2	< 5.2	U
106-93-4	1,2-Dibromoethane	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.2	< 5.2	U
91-20-3	Naphthalene	5.2	< 5.2	U
87-61-6	1,2,3-Trichlorobenzene	5.2	< 5.2	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	109%
d8-Toluene	81.3%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	98.6%

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

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**ANALYTICAL  
RESOURCES  
INCORPORATED**


Lab Sample ID: WD75E

LIMS ID: 13-3094

Matrix: Soil

Data Release Authorized:

Reported: 02/22/13

Sample ID: E-WALL  
SAMPLE

QC Report No: WD75-Landau  
 Project: Heavens Supply  
 583002.050.056  
 Date Sampled: 02/13/13  
 Date Received: 02/13/13

Instrument/Analyst: NT5/PAB  
 Date Analyzed: 02/20/13 16:05

Sample Amount: 4.30 g-dry-wt  
 Purge Volume: 5.0 mL  
 Moisture: 12.1%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.2	< 1.2	U
74-83-9	Bromomethane	1.2	< 1.2	U
75-01-4	Vinyl Chloride	1.2	< 1.2	U
75-00-3	Chloroethane	1.2	< 1.2	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>2.3</b>	<b>2.4</b>	
<b>67-64-1</b>	<b>Acetone</b>	<b>5.8</b>	<b>290</b>	
75-15-0	Carbon Disulfide	1.2	< 1.2	U
75-35-4	1,1-Dichloroethene	1.2	< 1.2	U
75-34-3	1,1-Dichloroethane	1.2	< 1.2	U
156-60-5	trans-1,2-Dichloroethene	1.2	< 1.2	U
156-59-2	cis-1,2-Dichloroethene	1.2	< 1.2	U
67-66-3	Chloroform	1.2	< 1.2	U
107-06-2	1,2-Dichloroethane	1.2	< 1.2	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>5.8</b>	<b>7.6</b>	
71-55-6	1,1,1-Trichloroethane	1.2	< 1.2	U
56-23-5	Carbon Tetrachloride	1.2	< 1.2	U
108-05-4	Vinyl Acetate	5.8	< 5.8	U
75-27-4	Bromodichloromethane	1.2	< 1.2	U
78-87-5	1,2-Dichloropropane	1.2	< 1.2	U
10061-01-5	cis-1,3-Dichloropropene	1.2	< 1.2	U
79-01-6	Trichloroethene	1.2	< 1.2	U
124-48-1	Dibromochloromethane	1.2	< 1.2	U
79-00-5	1,1,2-Trichloroethane	1.2	< 1.2	U
71-43-2	Benzene	1.2	< 1.2	U
10061-02-6	trans-1,3-Dichloropropene	1.2	< 1.2	U
110-75-8	2-Chloroethylvinylether	5.8	< 5.8	U
75-25-2	Bromoform	1.2	< 1.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.8	< 5.8	U
591-78-6	2-Hexanone	5.8	< 5.8	U
<b>127-18-4</b>	<b>Tetrachloroethene</b>	<b>1.2</b>	<b>8.9</b>	
79-34-5	1,1,2,2-Tetrachloroethane	1.2	< 1.2	U
<b>108-88-3</b>	<b>Toluene</b>	<b>1.2</b>	<b>3.4</b>	
108-90-7	Chlorobenzene	1.2	< 1.2	U
100-41-4	Ethylbenzene	1.2	< 1.2	U
100-42-5	Styrene	1.2	< 1.2	U
75-69-4	Trichlorofluoromethane	1.2	< 1.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.3	< 2.3	U
<b>179601-23-1</b>	<b>m,p-Xylene</b>	<b>1.2</b>	<b>4.8</b>	
<b>95-47-6</b>	<b>o-Xylene</b>	<b>1.2</b>	<b>2.5</b>	
95-50-1	1,2-Dichlorobenzene	1.2	< 1.2	U
541-73-1	1,3-Dichlorobenzene	1.2	< 1.2	U
106-46-7	1,4-Dichlorobenzene	1.2	< 1.2	U
107-02-8	Acrolein	58	< 58	U
74-88-4	Iodomethane	1.2	< 1.2	U
74-96-4	Bromoethane	2.3	< 2.3	U
107-13-1	Acrylonitrile	5.8	< 5.8	U
563-58-6	1,1-Dichloropropene	1.2	< 1.2	U
74-95-3	Dibromomethane	1.2	< 1.2	U
630-20-6	1,1,1,2-Tetrachloroethane	1.2	< 1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	5.8	< 5.8	U
96-18-4	1,2,3-Trichloropropane	2.3	< 2.3	U
110-57-6	trans-1,4-Dichloro-2-butene	5.8	< 5.8	U
<b>108-67-8</b>	<b>1,3,5-Trimethylbenzene</b>	<b>1.2</b>	<b>1.2</b>	

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**  
Page 2 of 2

**Sample ID: E-WALL  
SAMPLE**

Lab Sample ID: WD75E

QC Report No: WD75-Landau

LIMS ID: 13-3094

Project: Heavens Supply

Matrix: Soil

583002.050.056

Date Analyzed: 02/20/13 16:05

CAS Number	Analyte	RL	Result	Q
<b>95-63-6</b>	<b>1,2,4-Trimethylbenzene</b>	<b>1.2</b>	<b>2.4</b>	
87-68-3	Hexachlorobutadiene	5.8	< 5.8	U
106-93-4	1,2-Dibromoethane	1.2	< 1.2	U
74-97-5	Bromochloromethane	1.2	< 1.2	U
594-20-7	2,2-Dichloropropane	1.2	< 1.2	U
142-28-9	1,3-Dichloropropane	1.2	< 1.2	U
98-82-8	Isopropylbenzene	1.2	< 1.2	U
103-65-1	n-Propylbenzene	1.2	< 1.2	U
108-86-1	Bromobenzene	1.2	< 1.2	U
95-49-8	2-Chlorotoluene	1.2	< 1.2	U
106-43-4	4-Chlorotoluene	1.2	< 1.2	U
98-06-6	tert-Butylbenzene	1.2	< 1.2	U
135-98-8	sec-Butylbenzene	1.2	< 1.2	U
99-87-6	4-Isopropyltoluene	1.2	< 1.2	U
104-51-8	n-Butylbenzene	1.2	< 1.2	U
120-82-1	1,2,4-Trichlorobenzene	5.8	< 5.8	U
91-20-3	Naphthalene	5.8	< 5.8	U
87-61-6	1,2,3-Trichlorobenzene	5.8	< 5.8	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	110%
d8-Toluene	101%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	101%

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

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**ANALYTICAL  
RESOURCES  
INCORPORATED**


Lab Sample ID: WD75F

LIMS ID: 13-3095

Matrix: Soil

Data Release Authorized:

Reported: 02/22/13

Instrument/Analyst: NT5/PAB

Date Analyzed: 02/20/13 16:29

**Sample ID: E-Base  
SAMPLE**

QC Report No: WD75-Landau  
 Project: Heavens Supply  
 583002.050.056  
 Date Sampled: 02/12/13  
 Date Received: 02/13/13

Sample Amount: 5.52 g-dry-wt  
 Purge Volume: 5.0 mL  
 Moisture: 8.6%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.9	< 0.9	U
74-83-9	Bromomethane	0.9	< 0.9	U
75-01-4	Vinyl Chloride	0.9	< 0.9	U
75-00-3	Chloroethane	0.9	< 0.9	U
75-09-2	Methylene Chloride	1.8	< 1.8	U
<b>67-64-1</b>	<b>Acetone</b>	<b>4.5</b>	<b>42</b>	
75-15-0	Carbon Disulfide	0.9	< 0.9	U
75-35-4	1,1-Dichloroethene	0.9	< 0.9	U
75-34-3	1,1-Dichloroethane	0.9	< 0.9	U
156-60-5	trans-1,2-Dichloroethene	0.9	< 0.9	U
156-59-2	cis-1,2-Dichloroethene	0.9	< 0.9	U
67-66-3	Chloroform	0.9	< 0.9	U
107-06-2	1,2-Dichloroethane	0.9	< 0.9	U
78-93-3	2-Butanone	4.5	< 4.5	U
71-55-6	1,1,1-Trichloroethane	0.9	< 0.9	U
56-23-5	Carbon Tetrachloride	0.9	< 0.9	U
108-05-4	Vinyl Acetate	4.5	< 4.5	U
75-27-4	Bromodichloromethane	0.9	< 0.9	U
78-87-5	1,2-Dichloropropane	0.9	< 0.9	U
10061-01-5	cis-1,3-Dichloropropene	0.9	< 0.9	U
79-01-6	Trichloroethene	0.9	< 0.9	U
124-48-1	Dibromochloromethane	0.9	< 0.9	U
79-00-5	1,1,2-Trichloroethane	0.9	< 0.9	U
71-43-2	Benzene	0.9	< 0.9	U
10061-02-6	trans-1,3-Dichloropropene	0.9	< 0.9	U
110-75-8	2-Chloroethylvinylether	4.5	< 4.5	U
75-25-2	Bromoform	0.9	< 0.9	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.5	< 4.5	U
591-78-6	2-Hexanone	4.5	< 4.5	U
<b>127-18-4</b>	<b>Tetrachloroethene</b>	<b>0.9</b>	<b>9.3</b>	
79-34-5	1,1,2,2-Tetrachloroethane	0.9	< 0.9	U
108-88-3	Toluene	0.9	< 0.9	U
108-90-7	Chlorobenzene	0.9	< 0.9	U
100-41-4	Ethylbenzene	0.9	< 0.9	U
100-42-5	Styrene	0.9	< 0.9	U
75-69-4	Trichlorofluoromethane	0.9	< 0.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.8	< 1.8	U
179601-23-1	m,p-Xylene	0.9	< 0.9	U
95-47-6	o-Xylene	0.9	< 0.9	U
95-50-1	1,2-Dichlorobenzene	0.9	< 0.9	U
541-73-1	1,3-Dichlorobenzene	0.9	< 0.9	U
106-46-7	1,4-Dichlorobenzene	0.9	< 0.9	U
107-02-8	Acrolein	45	< 45	U
74-88-4	Iodomethane	0.9	< 0.9	U
74-96-4	Bromoethane	1.8	< 1.8	U
107-13-1	Acrylonitrile	4.5	< 4.5	U
563-58-6	1,1-Dichloropropene	0.9	< 0.9	U
74-95-3	Dibromomethane	0.9	< 0.9	U
630-20-6	1,1,1,2-Tetrachloroethane	0.9	< 0.9	U
96-12-8	1,2-Dibromo-3-chloropropane	4.5	< 4.5	U
96-18-4	1,2,3-Trichloropropane	1.8	< 1.8	U
110-57-6	trans-1,4-Dichloro-2-butene	4.5	< 4.5	U
108-67-8	1,3,5-Trimethylbenzene	0.9	< 0.9	U

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

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**ANALYTICAL  
RESOURCES  
INCORPORATED**


Lab Sample ID: WD75F

LIMS ID: 13-3095

Matrix: Soil

Date Analyzed: 02/20/13 16:29

**Sample ID: E-Base  
SAMPLE**

QC Report No: WD75-Landau

Project: Heavens Supply

583002.050.056

CAS Number	Analyte	RL	Result	Q
95-63-6	1,2,4-Trimethylbenzene	0.9	< 0.9	U
87-68-3	Hexachlorobutadiene	4.5	< 4.5	U
106-93-4	1,2-Dibromoethane	0.9	< 0.9	U
74-97-5	Bromochloromethane	0.9	< 0.9	U
594-20-7	2,2-Dichloropropane	0.9	< 0.9	U
142-28-9	1,3-Dichloropropane	0.9	< 0.9	U
98-82-8	Isopropylbenzene	0.9	< 0.9	U
103-65-1	n-Propylbenzene	0.9	< 0.9	U
108-86-1	Bromobenzene	0.9	< 0.9	U
95-49-8	2-Chlorotoluene	0.9	< 0.9	U
106-43-4	4-Chlorotoluene	0.9	< 0.9	U
98-06-6	tert-Butylbenzene	0.9	< 0.9	U
135-98-8	sec-Butylbenzene	0.9	< 0.9	U
99-87-6	4-Isopropyltoluene	0.9	< 0.9	U
104-51-8	n-Butylbenzene	0.9	< 0.9	U
120-82-1	1,2,4-Trichlorobenzene	4.5	< 4.5	U
91-20-3	Naphthalene	4.5	< 4.5	U
87-61-6	1,2,3-Trichlorobenzene	4.5	< 4.5	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	112%
d8-Toluene	102%
Bromofluorobenzene	104%
d4-1,2-Dichlorobenzene	102%

**ORGANICS ANALYSIS DATA SHEET**
**Volatiles by Purge & Trap GC/MS-Method SW8260C**  
 Page 1 of 2

Lab Sample ID: WD75G

LIMS ID: 13-3096

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 02/22/13

Instrument/Analyst: NT5/PAB

Date Analyzed: 02/20/13 16:52

**Sample ID: Trip Blanks  
SAMPLE**

QC Report No: WD75-Landau

Project: Heavens Supply  
583002.050.056

Date Sampled: 02/12/13

Date Received: 02/13/13

Sample Amount: 5.00 mL

Purge Volume: 5.0 mL

CAS Number	Analyte	LOQ	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	10	< 10	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
179601-23-1	m,p-Xylene	2.0	< 2.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

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**ANALYTICAL  
RESOURCES  
INCORPORATED**


Lab Sample ID: WD75G

LIMS ID: 13-3096

Matrix: Water

Date Analyzed: 02/20/13 16:52

**Sample ID: Trip Blanks  
SAMPLE**

QC Report No: WD75-Landau

Project: Heavens Supply

583002.050.056

CAS Number	Analyte	LOQ	Result	Q
107-02-8	Acrolein	10	< 10	U
74-88-4	Iodomethane	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropane	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	1,2-Dibromoethane	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	5.0	< 5.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0	U
91-20-3	Naphthalene	5.0	< 5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0	U

Reported in  $\mu\text{g/L}$  (ppb)**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	107%
d8-Toluene	101%
Bromofluorobenzene	103%
d4-1,2-Dichlorobenzene	99.7%

2-Chloroethylvinylether is an acid labile compound and may not be recovered from an acid preserved sample.

EPA SW-846 indicates that vinyl chloride and styrene may degrade in the presence of acid preservative.

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

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**ANALYTICAL  
RESOURCES  
INCORPORATED**

**Sample ID: MB-022013A  
METHOD BLANK**

Lab Sample ID: MB-022013A

QC Report No: WD75-Landau

LIMS ID: 13-3090

Project: Heavens Supply

Matrix: Soil

583002.050.056

Data Release Authorized:

Date Sampled: NA

Reported: 02/22/13

Date Received: NA

Instrument/Analyst: NT5/PAB

Sample Amount: 5.00 g-dry-wt

Date Analyzed: 02/20/13 11:00

Purge Volume: 5.0 mL

Moisture: NA

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
179601-23-1	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	50	< 50	U
74-88-4	Iodomethane	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropene	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge &amp; Trap GC/MS-Method SW8260C

Page 2 of 2

**ANALYTICAL  
RESOURCES  
INCORPORATED**


Sample ID: MB-022013A

METHOD BLANK

Lab Sample ID: MB-022013A

QC Report No: WD75-Landau

LIMS ID: 13-3090

Project: Heavens Supply

Matrix: Soil

583002.050.056

Date Analyzed: 02/20/13 11:00

CAS Number	Analyte	RL	Result	Q
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	1,2-Dibromoethane	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0	U
91-20-3	Naphthalene	5.0	< 5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	105%
d8-Toluene	100%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	100%

## ORGANICS ANALYSIS DATA SHEET

Volatile s by Purge &amp; Trap GC/MS-Method SW8260C

Page 1 of 2

**ANALYTICAL  
RESOURCES  
INCORPORATED**


 Sample ID: MB-022113A  
**METHOD BLANK**

Lab Sample ID: MB-022113A

LIMS ID: 13-3092

Matrix: Soil

Data Release Authorized:

Reported: 02/22/13

QC Report No: WD75-Landau

Project: Heavens Supply

583002.050.056

Date Sampled: NA

Date Received: NA

Instrument/Analyst: NT5/PAB

Date Analyzed: 02/21/13 10:47

Sample Amount: 100 mg-dry-wt

Purge Volume: 5.0 mL

Moisture: NA

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	50	< 50	U
74-83-9	Bromomethane	50	< 50	U
75-01-4	Vinyl Chloride	50	< 50	U
75-00-3	Chloroethane	50	< 50	U
75-09-2	Methylene Chloride	100	< 100	U
67-64-1	Acetone	250	< 250	U
75-15-0	Carbon Disulfide	50	< 50	U
75-35-4	1,1-Dichloroethene	50	< 50	U
75-34-3	1,1-Dichloroethane	50	< 50	U
156-60-5	trans-1,2-Dichloroethene	50	< 50	U
156-59-2	cis-1,2-Dichloroethene	50	< 50	U
67-66-3	Chloroform	50	< 50	U
107-06-2	1,2-Dichloroethane	50	< 50	U
78-93-3	2-Butanone	250	< 250	U
71-55-6	1,1,1-Trichloroethane	50	< 50	U
56-23-5	Carbon Tetrachloride	50	< 50	U
108-05-4	Vinyl Acetate	250	< 250	U
75-27-4	Bromodichloromethane	50	< 50	U
78-87-5	1,2-Dichloropropane	50	< 50	U
10061-01-5	cis-1,3-Dichloropropene	50	< 50	U
79-01-6	Trichloroethene	50	< 50	U
124-48-1	Dibromochloromethane	50	< 50	U
79-00-5	1,1,2-Trichloroethane	50	< 50	U
71-43-2	Benzene	50	< 50	U
10061-02-6	trans-1,3-Dichloropropene	50	< 50	U
110-75-8	2-Chloroethylvinylether	250	< 250	U
75-25-2	Bromoform	50	< 50	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	250	< 250	U
591-78-6	2-Hexanone	250	< 250	U
127-18-4	Tetrachloroethene	50	< 50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	< 50	U
108-88-3	Toluene	50	< 50	U
108-90-7	Chlorobenzene	50	< 50	U
100-41-4	Ethylbenzene	50	< 50	U
100-42-5	Styrene	50	< 50	U
75-69-4	Trichlorofluoromethane	50	< 50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	100	< 100	U
179601-23-1	m,p-Xylene	50	< 50	U
95-47-6	o-Xylene	50	< 50	U
95-50-1	1,2-Dichlorobenzene	50	< 50	U
541-73-1	1,3-Dichlorobenzene	50	< 50	U
106-46-7	1,4-Dichlorobenzene	50	< 50	U
107-02-8	Acrolein	2,500	< 2,500	U
74-88-4	Iodomethane	50	< 50	U
74-96-4	Bromoethane	100	< 100	U
107-13-1	Acrylonitrile	250	< 250	U
563-58-6	1,1-Dichloropropene	50	< 50	U
74-95-3	Dibromomethane	50	< 50	U
630-20-6	1,1,1,2-Tetrachloroethane	50	< 50	U
96-12-8	1,2-Dibromo-3-chloropropane	250	< 250	U
96-18-4	1,2,3-Trichloropropane	100	< 100	U
110-57-6	trans-1,4-Dichloro-2-butene	250	< 250	U
108-67-8	1,3,5-Trimethylbenzene	50	< 50	U

## ORGANICS ANALYSIS DATA SHEET

Volatile s by Purge &amp; Trap GC/MS-Method SW8260C

Page 2 of 2

**ANALYTICAL  
RESOURCES  
INCORPORATED**

**Sample ID: MB-022113A  
METHOD BLANK**

Lab Sample ID: MB-022113A

QC Report No: WD75-Landau

LIMS ID: 13-3092

Project: Heavens Supply

Matrix: Soil

583002.050.056

Date Analyzed: 02/21/13 10:47

CAS Number	Analyte	RL	Result	Q
95-63-6	1,2,4-Trimethylbenzene	50	< 50	U
87-68-3	Hexachlorobutadiene	250	< 250	U
106-93-4	1,2-Dibromoethane	50	< 50	U
74-97-5	Bromochloromethane	50	< 50	U
594-20-7	2,2-Dichloropropane	50	< 50	U
142-28-9	1,3-Dichloropropane	50	< 50	U
98-82-8	Isopropylbenzene	50	< 50	U
103-65-1	n-Propylbenzene	50	< 50	U
108-86-1	Bromobenzene	50	< 50	U
95-49-8	2-Chlorotoluene	50	< 50	U
106-43-4	4-Chlorotoluene	50	< 50	U
98-06-6	tert-Butylbenzene	50	< 50	U
135-98-8	sec-Butylbenzene	50	< 50	U
99-87-6	4-Isopropyltoluene	50	< 50	U
104-51-8	n-Butylbenzene	50	< 50	U
120-82-1	1,2,4-Trichlorobenzene	250	< 250	U
91-20-3	Naphthalene	250	< 250	U
87-61-6	1,2,3-Trichlorobenzene	250	< 250	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	107%
d8-Toluene	102%
Bromofluorobenzene	103%
d4-1,2-Dichlorobenzene	99.9%

**VOA SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: WD75-Landau  
 Project: Heavens Supply  
 583002.050.056

<b>ARI ID</b>	<b>Client ID</b>	<b>Level</b>	<b>DCE</b>	<b>TOL</b>	<b>BFB</b>	<b>DCB</b>	<b>TOT</b>	<b>OUT</b>
MB-022013A	Method Blank	Low	105%	100%	102%	100%	0	
LCS-022013A	Lab Control	Low	104%	101%	106%	99.7%	0	
LCSD-022013A	Lab Control Dup	Low	102%	101%	104%	98.4%	0	
WD75A	W-WALL	Low	107%	99.3%	101%	102%	0	
WD75B	W-BASE	Low	112%	102%	102%	99.6%	0	
MB-022113A	Method Blank	Med	107%	102%	103%	99.9%	0	
LCS-022113A	Lab Control	Med	107%	102%	105%	98.1%	0	
LCSD-022113A	Lab Control Dup	Med	107%	102%	105%	98.1%	0	
WD75C	S-WALL-W	Low	96.3%	98.3%	95.4%	102%	0	
WD75CRE	S-WALL-W	Med	109%	102%	102%	100%	0	
WD75D	S-WALL-E	Low	109%	81.3%	101%	98.6%	0	
WD75E	E-WALL	Low	110%	101%	102%	101%	0	
WD75F	E-Base	Low	112%	102%	104%	102%	0	

**LCS/MB LIMITS**

**QC LIMITS**

<b>SW8260C</b>	<b>Low</b>	<b>Med</b>	<b>Low</b>	<b>Med</b>
(DCE) = d4-1,2-Dichloroethane	80-122	76-120	80-149	69-120
(TOL) = d8-Toluene	80-120	80-120	77-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120	80-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	80-120	80-120

Log Number Range: 13-3090 to 13-3095

**VOA SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: WD75-Landau  
 Project: Heavens Supply  
 583002.050.056

<b>ARI ID</b>	<b>Client ID</b>	<b>PV</b>	<b>DCE</b>	<b>TOL</b>	<b>BFB</b>	<b>DCB</b>	<b>TOT OUT</b>
WD75G	Trip Blanks	5	107%	101%	103%	99.7%	0

**LCS/MB LIMITS**                                   **QC LIMITS**

**SW8260C**

(DCE) = d4-1,2-Dichloroethane	80-122	80-125
(TOL) = d8-Toluene	80-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120

Prep Method: SW5030B  
 Log Number Range: 13-3096 to 13-3096

## ORGANICS ANALYSIS DATA SHEET

Volatile by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 2

Sample ID: LCS-022013A

LAB CONTROL SAMPLE

Lab Sample ID: LCS-022013A

LIMS ID: 13-3090

Matrix: Soil

Data Release Authorized:

Reported: 02/22/13

QC Report No: WD75-Landau

Project: Heavens Supply  
583002.050.056

Date Sampled: NA

Date Received: NA

Instrument/Analyst LCS: NT5/PAB

LCSD: NT5/PAB

Date Analyzed LCS: 02/20/13 10:36

LCSD: 02/20/13 12:45

Sample Amount LCS: 5.00 g-dry-wt

LCSD: 5.00 g-dry-wt

Purge Volume LCS: 5.0 mL

LCSD: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	43.2	50.0	86.4%	48.7	50.0	97.4%	12.0%
Bromomethane	35.5 Q	50.0	71.0%	42.9 Q	50.0	85.8%	18.9%
Vinyl Chloride	45.2	50.0	90.4%	52.3	50.0	105%	14.6%
Chloroethane	55.8	50.0	112%	48.7	50.0	97.4%	13.6%
Methylene Chloride	46.8	50.0	93.6%	52.3	50.0	105%	11.1%
Acetone	228	250	91.2%	216	250	86.4%	5.4%
Carbon Disulfide	40.1 Q	50.0	80.2%	55.4 Q	50.0	111%	32.0%
1,1-Dichloroethene	39.7 Q	50.0	79.4%	52.9 Q	50.0	106%	28.5%
1,1-Dichloroethane	44.4	50.0	88.8%	49.9	50.0	99.8%	11.7%
trans-1,2-Dichloroethene	44.0	50.0	88.0%	50.5	50.0	101%	13.8%
cis-1,2-Dichloroethene	44.5	50.0	89.0%	49.8	50.0	99.6%	11.2%
Chloroform	48.6	50.0	97.2%	53.9	50.0	108%	10.3%
1,2-Dichloroethane	51.7	50.0	103%	53.1	50.0	106%	2.7%
2-Butanone	267	250	107%	246	250	98.4%	8.2%
1,1,1-Trichloroethane	49.2	50.0	98.4%	55.9	50.0	112%	12.7%
Carbon Tetrachloride	49.0	50.0	98.0%	56.6	50.0	113%	14.4%
Vinyl Acetate	46.0	50.0	92.0%	45.8	50.0	91.6%	0.4%
Bromodichloromethane	50.2	50.0	100%	53.3	50.0	107%	6.0%
1,2-Dichloropropane	49.6	50.0	99.2%	52.9	50.0	106%	6.4%
cis-1,3-Dichloropropene	51.8	50.0	104%	54.5	50.0	109%	5.1%
Trichloroethene	49.7	50.0	99.4%	55.7	50.0	111%	11.4%
Dibromochloromethane	50.2	50.0	100%	51.8	50.0	104%	3.1%
1,1,2-Trichloroethane	50.8	50.0	102%	51.4	50.0	103%	1.2%
Benzene	50.9	50.0	102%	55.9	50.0	112%	9.4%
trans-1,3-Dichloropropene	52.2	50.0	104%	54.5	50.0	109%	4.3%
2-Chloroethylvinylether	52.7	50.0	105%	52.2	50.0	104%	1.0%
Bromoform	52.2	50.0	104%	50.0	50.0	100%	4.3%
4-Methyl-2-Pentanone (MIBK)	268	250	107%	250	250	100%	6.9%
2-Hexanone	278	250	111%	256	250	102%	8.2%
Tetrachloroethene	48.1	50.0	96.2%	55.7	50.0	111%	14.6%
1,1,2,2-Tetrachloroethane	51.8	50.0	104%	49.5	50.0	99.0%	4.5%
Toluene	49.2	50.0	98.4%	54.8	50.0	110%	10.8%
Chlorobenzene	49.6	50.0	99.2%	54.5	50.0	109%	9.4%
Ethylbenzene	53.2	50.0	106%	59.7	50.0	119%	11.5%
Styrene	52.9	50.0	106%	58.3	50.0	117%	9.7%
Trichlorofluoromethane	47.1	50.0	94.2%	47.3	50.0	94.6%	0.4%
1,1,2-Trichloro-1,2,2-trifluoroetha	40.4	50.0	80.8%	53.6	50.0	107%	28.1%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

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**Sample ID: LCS-022013A**

**LAB CONTROL SAMPLE**

Lab Sample ID: LCS-022013A

QC Report No: WD75-Landau

LIMS ID: 13-3090

Project: Heavens Supply

Matrix: Soil

583002.050.056

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
m,p-Xylene	102	100	102%	116	100	116%	12.8%
o-Xylene	52.3	50.0	105%	57.6	50.0	115%	9.6%
1,2-Dichlorobenzene	50.4	50.0	101%	53.4	50.0	107%	5.8%
1,3-Dichlorobenzene	51.0	50.0	102%	55.2	50.0	110%	7.9%
1,4-Dichlorobenzene	50.8	50.0	102%	55.5	50.0	111%	8.8%
Acrolein	217 Q	250	86.8%	237 Q	250	94.8%	8.8%
Iodomethane	50.8	50.0	102%	66.9	50.0	134%	27.4%
Bromoethane	40.7 Q	50.0	81.4%	56.8 Q	50.0	114%	33.0%
Acrylonitrile	43.7	50.0	87.4%	42.0	50.0	84.0%	4.0%
1,1-Dichloropropene	50.7	50.0	101%	58.2	50.0	116%	13.8%
Dibromomethane	49.6	50.0	99.2%	51.1	50.0	102%	3.0%
1,1,1,2-Tetrachloroethane	50.1	50.0	100%	54.0	50.0	108%	7.5%
1,2-Dibromo-3-chloropropane	54.0	50.0	108%	47.3	50.0	94.6%	13.2%
1,2,3-Trichloropropane	52.4	50.0	105%	49.9	50.0	99.8%	4.9%
trans-1,4-Dichloro-2-butene	54.9	50.0	110%	56.4	50.0	113%	2.7%
1,3,5-Trimethylbenzene	54.6	50.0	109%	60.4	50.0	121%	10.1%
1,2,4-Trimethylbenzene	55.0	50.0	110%	60.9	50.0	122%	10.2%
Hexachlorobutadiene	49.8	50.0	99.6%	57.9	50.0	116%	15.0%
1,2-Dibromoethane	50.7	50.0	101%	50.8	50.0	102%	0.2%
Bromochloromethane	46.2	50.0	92.4%	49.1	50.0	98.2%	6.1%
2,2-Dichloropropene	46.1 Q	50.0	92.2%	48.0 Q	50.0	96.0%	4.0%
1,3-Dichloropropane	52.0	50.0	104%	53.0	50.0	106%	1.9%
Isopropylbenzene	54.9	50.0	110%	60.5	50.0	121%	9.7%
n-Propylbenzene	55.2	50.0	110%	62.0	50.0	124%	11.6%
Bromobenzene	49.8	50.0	99.6%	53.1	50.0	106%	6.4%
2-Chlorotoluene	53.7	50.0	107%	58.8	50.0	118%	9.1%
4-Chlorotoluene	54.2	50.0	108%	60.0	50.0	120%	10.2%
tert-Butylbenzene	53.9	50.0	108%	59.3	50.0	119%	9.5%
sec-Butylbenzene	55.2	50.0	110%	61.8	50.0	124%	11.3%
4-Isopropyltoluene	54.8	50.0	110%	62.1	50.0	124%	12.5%
n-Butylbenzene	55.3	50.0	111%	64.7	50.0	129%	15.7%
1,2,4-Trichlorobenzene	51.6	50.0	103%	56.5	50.0	113%	9.1%
Naphthalene	55.1	50.0	110%	53.1	50.0	106%	3.7%
1,2,3-Trichlorobenzene	50.6	50.0	101%	53.2	50.0	106%	5.0%

Reported in  $\mu\text{g/kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	104%	102%
d8-Toluene	101%	101%
Bromofluorobenzene	106%	104%
d4-1,2-Dichlorobenzene	99.7%	98.4%

**ORGANICS ANALYSIS DATA SHEET**
**Volatiles by Purge & Trap GC/MS-Method SW8260C**  
 Page 1 of 2

**Sample ID: LCS-022113A**
**LAB CONTROL SAMPLE**

Lab Sample ID: LCS-022113A

LIMS ID: 13-3092

Matrix: Soil

 Data Release Authorized: *B*

Reported: 02/22/13

QC Report No: WD75-Landau

Project: Heavens Supply

583002.050.056

Date Sampled: NA

Date Received: NA

Instrument/Analyst LCS: NT5/PAB

LCSD: NT5/PAB

Date Analyzed LCS: 02/21/13 10:24

LCSD: 02/21/13 11:11

Sample Amount LCS: 100 mg-dry-wt

LCSD: 100 mg-dry-wt

Purge Volume LCS: 5.0 mL

LCSD: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	2150	2500	86.0%	2320	2500	92.8%	7.6%
Bromomethane	1750	Q	2500	70.0%	1890	Q	75.6%
Vinyl Chloride	2370	2500	94.8%	2550	2500	102%	7.3%
Chloroethane	2240	Q	2500	89.6%	2430	Q	97.2%
Methylene Chloride	2350	2500	94.0%	2500	2500	100%	6.2%
Acetone	10800	12500	86.4%	11000	12500	88.0%	1.8%
Carbon Disulfide	2470	2500	98.8%	2650	2500	106%	7.0%
1,1-Dichloroethene	2390	2500	95.6%	2620	2500	105%	9.2%
1,1-Dichloroethane	2280	2500	91.2%	2460	2500	98.4%	7.6%
trans-1,2-Dichloroethene	2280	2500	91.2%	2470	2500	98.8%	8.0%
cis-1,2-Dichloroethene	2270	2500	90.8%	2470	2500	98.8%	8.4%
Chloroform	2490	2500	99.6%	2680	2500	107%	7.4%
1,2-Dichloroethane	2520	2500	101%	2620	2500	105%	3.9%
2-Butanone	12300	12500	98.4%	12500	12500	100%	1.6%
1,1,1-Trichloroethane	2540	2500	102%	2770	2500	111%	8.7%
Carbon Tetrachloride	2510	2500	100%	2740	2500	110%	8.8%
Vinyl Acetate	2230	2500	89.2%	2260	2500	90.4%	1.3%
Bromodichloromethane	2480	2500	99.2%	2570	2500	103%	3.6%
1,2-Dichloropropane	2460	2500	98.4%	2590	2500	104%	5.1%
cis-1,3-Dichloropropene	2560	2500	102%	2670	2500	107%	4.2%
Trichloroethene	2510	2500	100%	2740	2500	110%	8.8%
Dibromochloromethane	2460	2500	98.4%	2480	2500	99.2%	0.8%
1,1,2-Trichloroethane	2470	2500	98.8%	2520	2500	101%	2.0%
Benzene	2570	2500	103%	2740	2500	110%	6.4%
trans-1,3-Dichloropropene	2570	2500	103%	2680	2500	107%	4.2%
2-Chloroethylvinylether	2150	2500	86.0%	2260	2500	90.4%	5.0%
Bromoform	2380	2500	95.2%	2400	2500	96.0%	0.8%
4-Methyl-2-Pentanone (MIBK)	12500	12500	100%	12500	12500	100%	0.0%
2-Hexanone	12700	12500	102%	12700	12500	102%	0.0%
Tetrachloroethene	2460	2500	98.4%	2690	2500	108%	8.9%
1,1,2,2-Tetrachloroethane	2450	2500	98.0%	2460	2500	98.4%	0.4%
Toluene	2530	2500	101%	2710	2500	108%	6.9%
Chlorobenzene	2480	2500	99.2%	2640	2500	106%	6.2%
Ethylbenzene	2690	2500	108%	2910	2500	116%	7.9%
Styrene	2650	2500	106%	2820	2500	113%	6.2%
Trichlorofluoromethane	2720	2500	109%	3050	2500	122%	11.4%
1,1,2-Trichloro-1,2,2-trifluoroetha	2280	2500	91.2%	2530	2500	101%	10.4%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

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**Sample ID: LCS-022113A**

**LAB CONTROL SAMPLE**

Lab Sample ID: LCS-022113A

QC Report No: WD75-Landau

LIMS ID: 13-3092

Project: Heavens Supply

Matrix: Soil

583002.050.056

<b>Analyte</b>	<b>LCS</b>	<b>Spike</b>	<b>LCS</b>	<b>Spike</b>	<b>LCSD</b>	<b>RPD</b>
		<b>Added-LCS</b>	<b>Recovery</b>	<b>Added-LCSD</b>	<b>Recovery</b>	
m,p-Xylene	5230	5000	105%	5680	5000	114% 8.2%
o-Xylene	2620	2500	105%	2810	2500	112% 7.0%
1,2-Dichlorobenzene	2480	2500	99.2%	2570	2500	103% 3.6%
1,3-Dichlorobenzene	2550	2500	102%	2700	2500	108% 5.7%
1,4-Dichlorobenzene	2550	2500	102%	2700	2500	108% 5.7%
Acrolein	10000	12500	80.0%	10200	12500	81.6% 2.0%
Iodomethane	2480	2500	99.2%	2690	2500	108% 8.1%
Bromoethane	2120	2500	84.8%	2280	2500	91.2% 7.3%
Acrylonitrile	2070	2500	82.8%	2110	2500	84.4% 1.9%
1,1-Dichloropropene	2570	2500	103%	2830	2500	113% 9.6%
Dibromomethane	2410	2500	96.4%	2500	2500	100% 3.7%
1,1,1,2-Tetrachloroethane	2450	2500	98.0%	2600	2500	104% 5.9%
1,2-Dibromo-3-chloropropane	2450	2500	98.0%	2460	2500	98.4% 0.4%
1,2,3-Trichloropropane	2400	2500	96.0%	2420	2500	96.8% 0.8%
trans-1,4-Dichloro-2-butene	2640	2500	106%	2580	2500	103% 2.3%
1,3,5-Trimethylbenzene	2730	2500	109%	2940	2500	118% 7.4%
1,2,4-Trimethylbenzene	2750	2500	110%	2960	2500	118% 7.4%
Hexachlorobutadiene	2560	2500	102%	2820	2500	113% 9.7%
1,2-Dibromoethane	2430	2500	97.2%	2480	2500	99.2% 2.0%
Bromochloromethane	2320	2500	92.8%	2450	2500	98.0% 5.5%
2,2-Dichloropropane	2160	2500	86.4%	2570	2500	103% 17.3%
1,3-Dichloropropane	2500	2500	100%	2560	2500	102% 2.4%
Isopropylbenzene	2740	2500	110%	2940	2500	118% 7.0%
n-Propylbenzene	2780	2500	111%	3010	2500	120% 7.9%
Bromobenzene	2420	2500	96.8%	2540	2500	102% 4.8%
2-Chlorotoluene	2650	2500	106%	2840	2500	114% 6.9%
4-Chlorotoluene	2710	2500	108%	2920	2500	117% 7.5%
tert-Butylbenzene	2700	2500	108%	2880	2500	115% 6.5%
sec-Butylbenzene	2790	2500	112%	3030	2500	121% 8.2%
4-Isopropyltoluene	2800	2500	112%	3040	2500	122% 8.2%
n-Butylbenzene	2870	2500	115%	3160	2500	126% 9.6%
1,2,4-Trichlorobenzene	2590	2500	104%	2760	2500	110% 6.4%
Naphthalene	2590	2500	104%	2590	2500	104% 0.0%
1,2,3-Trichlorobenzene	2490	2500	99.6%	2590	2500	104% 3.9%

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	<b>LCS</b>	<b>LCSD</b>
d4-1,2-Dichloroethane	107%	107%
d8-Toluene	102%	102%
Bromofluorobenzene	105%	105%
d4-1,2-Dichlorobenzene	98.1%	98.1%